THE
SCHOOL JOURNAL
ORGAN OF THE DEPARTMENT OF PUBLIC INSTRUCTION AND OF THE STATE TEACHERS' ASSOCIATION.

Vol. 55. SEPTEMBER, 1906. No. 3.

DEPARTMENTS OF STATE EDUCATIONAL ASSOCIATION.

THE CHILD STUDY DEPARTMENT.

THE Child Study Department held two very interesting sessions. The papers were well prepared and the discussions spirited. It is the purpose of this department to carry on some definite lines of work for the coming year. Dr. J. George Becht, principal of the Clarion State Normal, is president of the department and directed the program. The first session convened at 8:30 A. M., July 4, and the first paper read was by Prof. O. H. Blakeless, professor of psychology, Bloomsburg State Normal School, upon

THE HIGH SCHOOL PROGRAM AS DETERMINED BY THE INTERESTS OF THE ADOLESCENT.

In the heart of one of our cities recently visited is a small park thickly studded with stately elms. A public library nestles among the trees. A few steps to the eastward, across the avenue, facing the park, a large public Latin High School building rears its walls; farther down the avenue, a stone's throw away, stands an English High School building of equally imposing proportions; anl just across the park, to the westward, within sight of these, is located a commodious Manual Training High School, perfect in equipment. With the library as a centre, these great institutions reach out into the life of the people.

A brief study of the curricula of these same schools, with the roll of graduates, and their occupations, reveals the fact that here, at least, the school system is planned broadly for the youth of the city, and the youth not sacrificed to the great Moloch of courses, grades, percents, and their attendant evils and discouragements. Here secondary education aims to touch life on every side, through the dominant interests of the pupil and the varied needs of the industrial and professional world.

The high school, the people's college, has passed its day of suspicion, of doubt and uncertainty. It has proved itself a necessity, and its power of adaptation, in a great system of education for a free people. It now remains to make the institution more effective, less wasteful, in the processes by which it gives to the world its products—character first, and then wise, well-trained, willing workers, capable of growing in efficiency. A worthy subject, this, with its involved problems of adaptation, adjustment and classification, to engage the minds of great teachers, statesmen and leaders of men.

Those who best know the demands of practical life, and the meaning of efficiency, and best understand the problems of adolescent life, must wisely plan for these boys and girls, just beginning to feel the blind impulses stir within them toward the larger life of freedom, without at all realizing its import and possibilities. The plans they formulate must shape for character, for service, for citizenship, for parenthood. The work demanded must be hard and exacting, within the capabilities of the student.

This does not necessarily mean unpleasant tasks, for the interested man is always the most indefatigable worker. Vital interest as it deepens drives to arduous, loving toil.

The way of interest is the only wise and safe way for the true teacher to follow, in spite of the scornful cry of a "soft pedagogy" from certain quarters.

THE ADOLESCENT. (*a*) *His Characteristics.*—But in the high school we deal with a new being in many respects. The adolescent student, if we give credence to those who have most carefully studied his manifestations, is a strange and wonderful being, "half human, half divine"; out of joint with his past, and unarticulated to his future. "He is in a state of flux, when the soul is everything by turn and nothing long, exploring the whole gamut of feeling, will and thought." The period marks physical changes most momentous and mental changes equally important. Consciousness of dawning power marks the period as one of restiveness, lawlessness, and irresponsibility. In vain effort to find his best self, he develops a sensitiveness to criticism, a reticence and variability that strains the patience and energy of those who have his welfare at heart.

Under unfavorable conditions, parental control, we are told, breaks down completely; and disregard of elders, passive indifference, insubordination result. A break with old conditions occurs, ending in the runaway, or the incorrigible. We all know the story. Statistics show that this is the age when the largest percent of criminals start their career, and often "just for fun." It is an age that needs for its guidance caution, a gentle and firm discipline, and most experienced and mature judgment. What high school teacher has not met this emotional maelstrom some time in his professional career, to go down before it in despair and utter helplessness? Standards, ideals, restraints of childhood slowly going; and a self-control, self-mastery incident to maturity not yet in the saddle. It is well characterized by some as "the age unlovable and unlovely," yet most needing love, sympathy and appreciation. If at this time the wild dreams of unrest break loose and begin the process of destruction, it is also the age of seriousness, when the young soul reaches out after the unattainable, the embryo saint appears and faces the future with lips firmly set, groping after answers to the riddles of the universe.

The outbursts of unusual growth, and of consequent long, lank, lolling indolence, betokening exhausted energies, physical and mental, we teachers know too well; and deal with too thoughtlessly and unsympathetically. How did the teachers of the past who, except the rare few, thought not upon these things, succeed at all, we wonder; and yet the wrecks of the process are not recorded, unless in the judgment book, against you and me, fellow-teachers. The university students, the experts, who are slowly opening up this field for us, pedagogically speaking are the saviors of youth and conservers of the forces of the ages. It behooves us as teachers to know this opening field intimately at first hand, by living with our boys and girls. The joy of the consciousness of helpfulness that comes to the teacher from an appreciative exploration of this field exceeds all others the devoted teacher may know.

(*b*) *In Relation to Interests.*—What are the interests, the emotional currents that unswervingly direct and hold the attention of the adolescent to the subject under consideration—the mental zest aroused by the thing, the idea, the emotion that we dominate interesting? No definitions are needed. Native and acquired, immediate and remote, every moment of the day they are directing and modifying the thought and actions of our self and pupils. We feel them; we know them. As teachers we recognize them, and must guide and be guided by them.

The youth brings with him to the high school his native interests, greatly modified, it is true; but yet, as in all subsequent life, things and processes, his objective experiences appeal most strongly to him. Observation is keen and effective; hence interest, direct and immediate on the part of the pupil, holding the mind to the thought process and followed by motor activity is the natural healthy course for the teacher to follow in these grades. Thought is always followed by expression in some form; for right thinking and right doing comprehend about all there is in the educative process. The whole problem rests on the kind of interest and from what they be derived, for interest there will always be. Interest must be in the right thing, and the teacher, with the wisdom of Nestor, must find this right thing. His acquired interests are already, in many cases, dominating, relatively abiding and permanent, and must be reckoned with in every recitation.

Emulation is highly organized, ambition possesses his soul; he sees far into the future, and dreams of great things. He is in love with adventure, courage, hardship, heroic sports; a hero worshiper; ready to try great feats of strength, endurance and skill. What will youth not do under the impulse of his darling, god-like leader, physically, mentally, morally? How important that we have here men and women of heroic mold as teachers. Lack of wise leadership is too often the cause of separation from the school at this time. There is a new-felt interest in adults and their ways

and doings, a passion to be treated like one's elders, which can be used constantly as a stimulus to better effort.

The teacher's problem, ever solving and never finished, is how to articulate the needed thing of remote interest to the thing of immediate interest, with this anomalous bundle of inconsistencies—the adolescent. A white heat of interest in any subject carries its possessor forward to the goal with a joyousness that makes for power and growth. Interest conserves energy, lack of it makes for waste. We all thrive better when we move with our emotional currents than against them. Hence every step of the way through the high school will be best taken when the teacher plans and builds securely on youth's right interests. He must thoroughly know his pupils, to be *sure* they *are* right, diagnosing to a certainty, by living close to his pupils in sympathetic concern, molding and shaping their growth with a master's hand.

The youth, when he enters the high school, thinks well in his elementary way, has in a measure formed the book habit, has mastered the tools of knowledge and is amply ready to enter upon a field of culture, providing the work and his conditions or environment are adjusted to each other. Here is the danger—beating time while slow pupils are gathering force, cram without thought or comprehension, stultification, failure to pass the grade, discouragement,—and what teacher does not know the story, a child adrift, a case of arrested development, a man bereft of his heritage.

(*c*) *In Relation to Program.*—Briefly let us look at the program. The high school is for the youth. This fact must not be lost sight of. There are no revolutionary processes to be advocated in adjusting program and interests. Eagerness to perfect system has made us multiply machinery, to the detriment of the student. We must get back to the individual. Why should courses so dominate, that strong and weak, bright and slow, work together side by side to the discouragement of both, to pass or fail at yearly intervals rather than to develop naturally into the larger life, with the spirit of growth upon them?

We cannot have a special program for each individual, possibly, but there are modifications that can be made by which the slow will not be wrecked by hurry and cram, and the swift retarded and made careless. A way by which the deeply sensitive child need not be driven in upon himself, and the motor child made a hollow echo of other men's minds. Can the individuality of the child be held from violation, and the best features of the course, grade and class system be maintained? If not they had better go, for life is more than meat, and a thinking man more than a stunted soul or broken body. It will not stop the wheel of progress if courses are less rigidly maintained, and tastes and ambitions given more consideration.

We are learning that in our world all sides are bound together, all studies grow out of relations to one great common world. When the student lives in varied, but concrete and active relations to this common world, his studies are naturally unified, and he sees their bearing upon him and the process. The problem of effectiveness of school and program will be solved when the subjects relate to life, when school is life, as all life is school when student days are over, and culture, discipline, information and utility become a single aim.

The adolescent is not interested in English, Latin, book-keeping, stenography, mathematics, science, if he does not feel their relation to life. The motives which keep the youth active and growing at home, out of school and in school should be the same. Then there will be unity in the child's experience as there is not in our present processes. The unsatisfactory in life is always that which is out of visible or unintelligible relations to its surroundings.

What arrangement of the program will most effectively stimulate the student, and make him respond quickly and joyously to its demands? There is not so much a change of subjects as a change in their approach which is required, which is more and more coming to be from the side of life and of the child. The book is a means, not an end. The field covered from year to year will still be nature in one or more of her great phases; history and literature, for their ethical and esthetic bearing; language or languages, for their thought stimulation; appreciation and expression; form and number as a means of measuring and weighing the world of matter and force; and the arts to give greater power of appreciation and expression.

"There is nothing," says Hall, "in the environment at this stage to which the student will not quickly and keenly respond in the master hand of an earnest, interested, sympathetic teacher.* * * With pedagogical tact we can teach about everything we know, that is really worth knowing; but if we amplify and moralize instead of giving great wholes, if we let the hammer that strikes the bell lie too long against it, and deaden the sound, and if we wait before each methodic step until the pupil has reproduced all the task, we starve and retard the soul which is all insight and receptivity." Again, "Plasticity is at its maxi-

mum and utterance at its minimum. Boys are dumb, bound, inarticulate, save in their own vigorous way." Every recitation in the earlier years of the high school verifies these observations. Those of us who can recall vividly these years of our lives, will remember the deep but transient interests that moved us like sweeping blasts. At such periods what could the teacher who understood not have done? Inappropriateness of work at such time kills. The boys and girls are interested in doing things, hence ready to do close thinking the better to put into action ideas that have been acquired. In practical life, doing well what one does is a necessity, and he who has not in the school gained power and versatility will find life's demands exacting and discouraging.

The teacher is not to hypnotize into learning, but to guide in a delightful road after hard things requiring effort that makes growth, and consciousness of power will be its own guerdon. A student at this stage will want to assume responsibilities, his emotional nature will bound at the privilege of doing. The school program must plan for this end. It means a modification of our present study and recitation plan, too often the worst feature of our school system, too frequently a waste of time and a dissipator of mental energy for both teacher and pupil, without definite resultant growth—the great end of teaching. He should be taught to do for development's sake rather than for a coming test, having definite ideas and thoughts on the subject in hand, and trained in power of expression in every way that life can possibly make a demand upon him; to give his ideas in simple, terse English, by speech and writing; where possible by drawing, painting, modeling, making, if possible, or any other practical mode of expression. Form separated from thought is dead. "The letter killeth, the spirit giveth life." "Over-accuracy," says Hall, "is atrophy. Examinations do not test the deepest and best in a child. Both mental and moral acquisitions sink too deep to be reached by them, without injuring both intellect and will."

What can we do in the way of introducing subject matter in science and art, in civics, history and literature, in language and expression, that shall have a positive value and real significance in the youth's life, representing something worthy of attainment in skill and knowledge?

We must not lose sight of the fact that this is peculiarly the age for engrafting and enlarging ideas and principles, not mere fact-getting and drill. The youth needs the laboratory, that head and hand may work together. The manual training department must be open that sensory tracts and motor tracts may coordinate in the plastic stages. It is criminal to neglect this, or to put this important work into the hands of incompetent or untrained management.

Physical phenomena make a strong appeal to the interests of the adolescent in his early stages, and in a way that it can not do later. He has an eye to the objective, the mechanical, the moving, the practical. The program should plan for the empirical study of such phenomena early in the course at the "psychological moment," or we lose a vigor of interest in such phenomena that returns not again. Physical science slighted in this objective stage, or poorly taught, does not appeal to the boy's interests in the same way again.

The chemical laboratory, though the work be crude and objective, rather than scientific at this stage, is a place of wonder-working, and the teacher, to humor the interest, will find his wisely-guided class gaining by leaps and bounds.

Physical training is too often for the best athletes, because it is a winning card for show. The physical director with this tendency rather than a genuine desire for development of his students, shows little patience with the poorly co-ordinated child, who most needs his wise guidance and help. This is a wonderful field for holding and developing interests, and indirectly grappling with hooks of steel to almost every subject in the curriculum. In a large school not long ago the spectacle of fully one hundred boys in line against the wall in varying attitudes of idleness and inactivity during the physical culture period, while all the energy and enthusiasm of an instructor and his assistant were expended upon nine boys who were the school stars in training, was a most humiliating confession that the athletic spirit, good in itself, may defeat its own end.

The element of doing enters so strongly into all the work of this stage that the group of historic, literary and civic subjects may be made to get their greatest impetus from this source. History teaching has not been the prolific stimulation to high ideals to public and civic life that it should be. And the reason is not far to seek. This work in the schools has been and is meaningless and dead to the majority; in fact, out of touch with life to the youth, and recitations without thought stimulation. Ethical and civic training is best done, too, by appeal to the activities; much may be done in these subjects by way of organization. Club work, local historic research, close touch with history in the making by the use of such papers as the "Little Chronicle;" conducting elections,

interest in and working with local civic clubs will stimulate the adolescent as seat study and recitation can not. A social settlement for boys recently visited showed the great possibilities in this direction, of utilizing the social interest among boys from twelve to eighteen years of age, touching the historic, scientific, the literary, artistic, athletic and social interests of its members.

The esthetic side of our school life is too pathetic to touch upon. We as a people have been left undeveloped in this great field of mental activity. Eliott says, "It is monstrous that the schools which prepare for college should give four or five hours a week to Greek and no time to drawing." Interpreting drawing to include the wider application of the subject to the field of taste, we teachers must plead guilty to a great neglect. In the light of this we understand why tawdry vulgarity stares at us with brazen face from every side. We have a good deal of misplaced emphasis and poor teaching in the field of art in the higher grades. But we are learning. No subject in the high-school curriculum can so vitally touch the interests of the pupil as the art side when brought into adjustment with his life. None will so quickly revolutionize his home. We are only beginning to realize the possibilities that are opened to the real teacher for the quickening of youth in this great period of soul upheaval, unsettling, and later subsidence into adulthood.

Of the many who fail to cover the work of the high school grades we fear the larger proportion are victims of unsympathetic teaching done by men and women with quantity standards, whose chief glory is having covered a subject without regard to growth of pupil or relation of subject to the student's experience. Each year we have the spectacle of scores of failures in the work of the year because interest and individuality are lost sight of in mass work; failure to understand, consequent disgust or discouragement, or possibly courage enough on the part of the student to defy systems unreasonably exacting.

(*d*) *In Relation to Personality of Teacher.*—After all, the teacher is the vital element in the process, and I cannot refrain from a word upon the subject. Strong personality is the crying need of the profession. An earnest teacher is found somewhere in the life of every man who has aspired to achievement and won success. The teacher without marked enthusiasm for his work and sympathetic appreciation of his pupils becomes a mere dealer in facts and second-hand knowledge, whether it takes the shape of laboratory directions, lecture, reiteration, or weak catechetical recitation.

The youth is a hero worshiper, is ready to follow a leader, is easily inspired by enthusiasm. Happy is he who finds this inspiration in his teacher. He who does not is in danger of arrest. Youthful aspirations toward manhood and womanhood are high, and appreciation of this fact goes a great way toward controlling the bent of youthful effort. Hence the necessity of a strong personality, unselfish, studious, wise, on the part of the teacher.

The youth has a constantly growing interest in adults, and is willing to be guided by those he trusts and admires. A passion to be treated like elders makes him appreciate any deference shown to his opinions. Judge Lindsey understands this, and makes use of it with the perverted or degenerate boy. His sympathy, esteem, and confidence; his physical strength, and his time out of a busy life are all lavishly given, and results follow clear and strong as day the advent of morn. His boy, Harry, said: "If ever I gits bad or swipes things again the judge will lose his job—see!—and he is my friend, and I am going to stay wid him."

And always so—the adolescent "stays wid him"—that is, the teacher who is worth while—long-headed and big-hearted enough to go after the girl or boy though it leads into quaking bogs and brambles drear. "Loyalty, responsibility, trust, love, all the ennobling instincts of the soul are in Harry's statement. The Judge plays upon these rather than hate, fear, despair and gloom, and the boy responds sweet, pure, clear and true." What lessons for the teacher here in character building. "Love never faileth."

We need men and women of the larger mold, men to stand as models for boys, women strong and noble to guide the girls and inspire the boys. The Greeks deified beauty and courage and placed them in the clouds. And their youths under the shadow of such ideals, became like them. The Spartan idea of having for every boy a man as guardian, adviser, hero and counselor has a stroke of inspiration in it.

Our present system is often cruel to the boy who has peculair power blended with weakness. What teacher has not seen many promising students fall victims to a graded system, quantity-teaching with a gulf between the teacher and pupil; all thought for the subject and none for the youth. "When there is no response, it is *not* the child that has failed. We the teachers, have failed,—because in that case we have been bunglers with the God-given

material placed in our hands. We are not attuned to our task."

The pupil who quickly and well learns the value of hard self-driven effort, is fortunate. This comes through the wise, sympathetic exacting teacher, kindly but firmly appealing to the heroic element of the boy. Graduation is the vanishing of the teacher. Does the youth then stand alone as a joyous worker, life student, and man of honor? If this last test is met, the school and the teacher have done their duty. The program and the student have been rationally adjusted to each other.

"Education," says Hadley, "should make men better, and sounder morally and spiritually; it should make them better members of the body politic, and better workers. Education aims to make men, not money." We have tried courses, grades, classes, percents and graduation, and met partial failures. Let us now try intelligent individual soul-culture, in the spirit of service.

Prof. Arthur C. Fleshman, of the Slippery Rock State Normal School, followed with a paper on

HOW TO STUDY CHILDREN WITH ADVANTAGE AND PROFIT.

The chief purpose in studying children is to ascertain how to teach them. Important as the physical, physiological, hygienic, experimental and statistical methods may be, the primary advantage and final profit in child study must necessarily be pedagogical. Dr. Burnham says: "Child study is primarily for the teacher, secondarily for the child and incidentally for science." My thesis, then, is, "How does child study assist the teacher in the actual educational process of the school-room?" The teacher must thoroughly understand the two organic elements in every process in teaching, —the child to be educated and the subject matter to be taught. He must delicately adjust the child life, the child mind, the thinking mind, to the thing to be thought, to the lesson to be studied, to the other life of the world that is to become a part of the child's own mental equipment. The two factors in every educational process are the child with its possibilities and actualities and a certain stimulus, a certain objective existence which is to become subjective through a process called knowledge.

The ultimate problem in teaching and in education is to unify and organize the life-unfolding process of the child with a corresponding life movement found in the objective world. The child grows mentally by uniting himself with appropriate ideas, thoughts and the spirit of the world other than himself. The infant with much that is potential and little actualized is lost in the material world. As muscular co-ordination develops into mental co-ordination, the child gradually becomes absorbed in objective existence, slowly begins to observe, to perceive, to dissect, to analyze, to compare, and as the mind grows, to think and reflect and in later life to find in the outer world relations and laws akin to his own nature.

We teachers may be interested in noting the physical defects of children, in measuring their reactions both quantitative and qualitative and in studying their social environment, but we are all supremely interested in the child's spiritual nature, in watching the budding mind, in assisting the mind potential to become mind actual and in realizing the true aim and effect of the whole educational process upon the life and destiny of the pupil.

All students of children must remember that the child is a spirit, a soul, and that he has a body, and if we are real child study scientists we should first be interested in mind activity and soul growth. In our ardor for the cause we may be led away from the real child to the "machinery-like functions," to the study of the child as a specimen of natural history. While this is an interesting field of investigation, it must be secondary to the study of the child as a spiritual being. If the pedagogical maxim, "The school is an organic spiritual unity." be true, the teacher's chief business is soul-development.

How does the child grow? how does he develop? how does he perceive? how does he think? how does he learn? These are the central problems of child study and have an immediate interest to the teaching profession. The teacher must understand the movement of child mind, must know his interests, his capacities, his reactions native and acquired, and have a working knowledge of soul growth. It should be the function of the teacher to think and unify the one to be educated into harmony with that particular mind activity in the world which is to administer and aid in the pupil's process of self-realization.

To study children with advantage and profit means to study them in relation to the actual life of the school. It means to observe carefully the child in studying a lesson, in teaching a lesson, in noticing his reactions toward the lesson, and the effects produced upon the life of the child in and through the lesson learned. It means to study the delicate mind process in the act of knowing, in the act of reciting, and in organizing just that school life that will meet the demands of the child's whole nature—intellectual, social, esthetical and moral. This throbbing life of the school

should now be made to flow into the lives of the pupils that they may realize the true purpose of their existence.

Child study! We make measurements! We work out statistics! We perform highly complex experiments! While all this work is valuable and interesting to the general student of child life, how much does it assist us in the actual concrete process of education? How does it preserve the organic unity of the school? What insight does it give in teaching grammar, arithmetic or history?

What the teacher needs, what the teacher desires, and what the teacher must get from child study is a sympathetic knowledge of the inner life and nature of the child. He should also know how the child is made to respond and grow through the interaction of appropriate subject-matter. Here is a child. Here is a lesson. The teacher's question, the pedogogical question, is: How can I make this knowledge administer to the child's spiritual necessities? How can I use this bit of experience to produce the life-unfolding process of the child? How can I teach this lesson to make the youth sensitive to his true worth and to inspire him with all that is truest, best and most beautiful in life? By making a close study of children, the teacher approaches his work in a more sympathetic and soul-inspiring manner and quickly realizes that that method of teaching is best which appeals most directly to child activities and which harmonizes most accurately with his life tendencies.

Child study then gives us the key to method in teaching. As sense-perception and understanding are said to be the stems of knowledge, so the child and the objective world are the stems of method. Method is an ideal activity harmonizing with a real activity, and not some cunning trick or mechanical device. The ideal activity is the child, the real activity studied. The teacher should, therefore, be, par excellence, a student of child life, an interpreter of child activities, and be able to adapt and harmonize the outer world with the inner activities of the child. There is a method in every subject to be learned and in every child to be taught. The method in any subject must exactly fit a corresponding stage of development in the method of the child.

The objective method is the thought found in the innermost constitution of all things. It is the creative and constructive energy of the world, producing now a lily and now a part of speech. Method in botany investigates the former activity and method in grammar the latter. The subjective method is the law in the child mind, which transmutes the ideas or thoughts of the lily or parts of speech into the thinking mind. There is an organic living relation between what the child is and what he studies. This unifying principle is something common to the child and common to subject-matter and knits the two together in a process of knowledge. In studying a leaf the child first grasps it indistinctly. He then analyzes it into its thought-relations, studying each separately. He finally organizes the isolated attributes into the original whole and thereby translates the facts of the thing into forms of consciousness. Real pedagogical child study would require the teacher to follow the crude thought of the learning mind and to assist it in taking the necessary mental steps. It consists in thinking the thought of the one learning and adjusting this mental movement to the thought of the thing studied. Profitable child study leads the teacher into a knowledge of how the mind grows in the educational process.

I have recently been interested in studying children from the standpoint of method in the common branches. Method should not be studied from a text-book on teaching, so much as from the child in the actual process of learning a subject. Of the many methods in teaching children to read, "the social thought method" seems by actual practice to harmonize best with the child's life movement, and has, therefore, the stamp of authority placed upon it by the being to be taught. According to this method, children are grouped around some interesting object, as an apple, a bird's nest, a squirrel in the cage or any object that especially appeals to the child. By carefully studying the child and watching the inner life activity a mental movement is noticed as follows: Through the external stimulus the child observes, perceives and finally thinks in a child-like manner. By means of his social environment he is led to talk and express his thoughts in a spontaneous but crude way. Through the intensity of interest in the object or picture and by means of the power of imitating the teacher, the child pours out his energy of muscle and mind in an attempt to write. The sentences written by the teacher and copied by the child, and filled by the warmth of his own thought, are now read as beautifully and as spontaneously as they are thought or expressed in conversation.

A beautiful red apple was presented to a class of children just entering school. Through the constructive energy of mind the following external forms were created and externalized: The apple. The apple is red. The apple is green. The apple has a

stem. The apple has seeds. The apple is round. The apple has a core. The apple is hard. The apple has a skin. A modern maxim of mental life says: "No impression without a correlative expression." By observing the apple (and by eating a piece if it takes that to secure interest) the children spontaneously threw their thoughts out in visible forms and made objective what had been in subjective existence only. Reading is, therefore, a method of expressing thought, developing thought and creating thought. The mental movement in learning to read is thinking, talking, writing, reading. As sentences represent an estranged self and as the child can re-think most easily his own thoughts, he should first read his own language. In beginning to read, the mental movement is from content to form, but in advanced reading it is from form to content.

The problem of method in number depends entirely upon how the child reacts quantitatively. Whether you should use the concrete method, the Grube method, the Heuristic method, the Speer or ratio method must be determined entirely by the nature of number activity and the nature of the child mind in learning the number idea, and not upon a text-book on methods. Method in each common branch should indicate by actual tests how the learning mind best identifies itself with the subject studied to the end of growth.

Dr. Earl Barnes has proved that children tend to use drawing primarily as a language. He says: "Drawing is a means of telling something rather than a method of making something pretty." We have employed this principle in having children to illustrate the thought of the reading lessons. Even in the primary grades children accurately picture the thought of the lesson and externalize it in intelligent form. Experiments have been made in picturing lessons that have been mechanically read and those that have been thoughtfully read and studied. The blurred and imperfect pictures follow from the blurred and imperfect images of the language. Minuteness of thought and accuracy of understanding can be obtained only by a close study of the production preparatory to illustrating its meaning. We have recently infused new life into the study of literary classics in the advanced grades by working out a pictorial representation of the thought embodied in each production. What are some of the results of child study applied to education? If the teacher studies the child from the pedagogical standpoint, he will adapt all of his measures, both in guidance and in instruction, to the nature of child activities. In preparing the proper educative material, hereditary endowment and early environment must be taken into consideration as they are exceedingly potent factors in the development of the child's character.

Paidology has introduced evolution into the study of the human soul and has set forth the doctrine that "mind is nothing apart from those activities in which the life and growth of mind consist." This modern educational science gives us new insight into the problems of the school, aids us in classifying pupils, in promoting pupils, in noticing the effect of fatigue in school life and in working out rational modes of school government and punishment. It teaches that the child is fundamentally a social being and that educational science is largely a social science.

According to this new doctrine of education, less attention should be paid to times tardy, days absent, pages studied, and more attention to dispositions, characteristics, tendencies, temperament, and power of thought-development. While there are the greatest differences existing in the psychological makeup of children, the teacher must have a firm grasp of certain universal principles, without which no science of psychology is possible, and no theory of pedagogy conceivable. One of these fundamental laws is that all mental life is based upon the child's self-activity and that every process in education arouses this self-active energy.

Child psychology has attempted to find out the thought circle of the child when he enters school. It has been ascertained by many tests that the child is frequently ignorant of many common objects, and that his idas of the meaning and purpose of the objects he has seen are either vague or false, and that his generalizations are far too sweeping. It has been demonstrated that children are interested in natural objects, because they are useful to them, that they accept punishment on a basis of feeling without any definite ideas whether it is just or unjust, and that they acquire religious concepts through concrete experiences with mankind and that their early religious ideas are anthropomorphic.

Paidology proves that there is a gradual evolution in the mental life of the child from sense-perception, imagination and memory to a development of the higher powers and activities of mind. In this onward movement of the life process, the child is intensely interested in content and acquires form incidentally. He should be introduced to content studies within the range of his thought, and the forms of ex-

pression will largely take care of themselves. We need to give children things to think about, in which they are interested, and they will gradually grow into the correct usage of language and expression.

All progress in education has been based upon a study of the child to be taught. The doctrine of Comenius grew out of the fact that the old methods of teaching did not arouse the self-activity of the child. Pestalozzi saw that children could be made happier, stronger and better by using things and facts rather than words and rules. Froebel taught that all development is due to continuous self-activity under proper stimulus and was the first thinker to work out and state clearly the fact that education is conscious evolution.

These educational reformers were intuitionalists, and not child study scientists. However both classes of thinkers aim at the same purpose,—to adapt a certain movement in subject-matter to a corresponding thought movement in the mind of the child. The paidologist makes a careful diagnosis of each child to be taught, makes a scientific study of each personality to be educated, and then organizes about that life such thought-material necessary to remove the estrangement and restore the self to the self. Education is a process of mind identifying itself with the thought and spirit of the world other than itself. The child study scientist analyzes the outer world of thought, to harmonize with the inner life movement of the child to the end of growth. He adjusts, adapts, and unifies the child mind to a similar thought-process of science, literature, art and other forms of knowledge necessary to complete the educational process, and to cause the individual to realize his true worth and destiny. Child study gives the teacher a keener appreciation and insight into the life to be developed, gives skill in teaching, fundamental ideas in school management and in the organization of the curriculum and makes education a process dealing with the infinite possibilities of the entire life of the child.

In the discussion which followed the reading of these papers, it was asked by Prof. Wallize: "Can the ordinary teacher without special training teach manual training"?

Prof. Bakeless: No. She can guide it only. But the ordinary teacher does not even try to guide it. Art, manual training, music—she washes her hands of the whole thing.

Dr. Becht: How can we get teachers aroused to take an interest in the manual side of education?

Prof. Bakeless: Teach them to love their work better than pay day.

Dr. Becht: Is it possible to arouse such a professional spirit?

Answer: It is, and can be brought about by teachers taking an interest in the study of the child. Teachers as a rule do not have a proper understanding of children. This department may do much to arouse an interest in child study.

Dr. Becht: Pennsylvania ought to be doing more work in the direction of child study. Much good work is being done in different localities in the state. Some concerted action by the state would bring about more desirable results.

Dr. Welsh, Bloomsburg: A good deal is being done by individuals that is not heard from. While some are active in the work others are opposed to it. Much help may be given by the united action of those in authority. This department can arouse an interest in child study by sending out circulars from time to time and by having the work taken up by county and local institutes; also by the adoption of some resolution here that will point out the specific line of work for the year. It is a vital subject, but the good work has been confined to small groups.

Prof. Heverley: Prof. Bakeless, would you consider Hall's "Adolescence" a good book for child study?

Answer: Hall's "Adolescence" is a wonderful mine of wealth. It has been a great help to me. It has done more for education than any other book.

Prof. Welch, Clarion: I have also received great benefit from Dr. Hall's book and consider it a valuable work for teachers. But any book can at the best be only a guide. Each teacher should know the children in his care and both the child and the teacher will be benefited by this knowledge. A systematic study of the individual child is better than much study of books only.

Before adjourning the following committee was appointed: Profs. O. H. Bakeless, G. B. Milnor and A. B. Wallize, to formulate a specific line of work for the department for the coming year.

THURSDAY MORNING.

The department met at 8:30 A. M. Dr. Becht in the chair. After some introductory remarks he announced the first paper of the session, by Mrs. Letitia P. Wilson, superintendent of Kindergarten, York, Pa., and chairman of the Kindergarten Department of the Mothers' Congress of Pennsylvania, upon

THE VALUE OF CHILD STUDY CIRCLES IN THE SCHOOLS.

Of the many influences that shape a child's life we wonder which is the most potent—that which comes during the hours in the school-room, that which shapes life on the play-ground, or that influence which should abound in the home circle dominated principally by the mother. We talk over these different phases of child training, and even when we decide upon the one that seems most important there is always a doubt in the mind, leaving us free to talk it all over again the next time we meet. So to-day we come together filled with the belief that we must work together—we of the school-room, we of the play-ground, we of the home, knowing that it is this all-togetherness of teacher, mother, friend, that makes for the child's righteousness.

Experience teaches that the influences of the home are strongest when the conditions are normal, and every teacher should feel glad to know that under such conditions the work in the school-room only supplements that of the home, but how many mothers and teachers ever have the time or the inclination to sit down and talk over the child problem in the home and the child problem in the school, and out of the two weld a definite plan which shall benefit the object of their consideration.

The mother does not know the teacher, and sometimes the teacher feels that she has been trained for her work and the mother has not been, therefore, they can hardly consult; it will take extra time and so little will be accomplished. But until we can come to the point of looking upon child study as a matter of primary interest to the teacher and to all others engaged in the care of children, as affording a basis for the methods of education, giving a source of perpetual interest to work in school, an interest in the individual child, and a means of working out in practice the best that can be done with the child at various phases of life, our work is only half done. For without an ultimate knowledge of children there is always a difficulty in the presence of a peculiar child, and to understand that child we must know children in school, at home, on the play-ground. Biologists know that in studying any living thing its parts must be observed; attention to weight, size, action, habit, are all studied in order to know that particular animal. Many traits of character are common to them. These we know as the universal characteristics—and surely these must be recognized before the especial or individual traits are known. In so limited a paper as this there is no time to speak of the child on the play-ground, although we must recognize the fact that, until we have perfect supervision there, we cannot expect to save the child, and to only one phase of the very broad subject of child training shall we be confined. The value of child study circles is great when every available means at hand is used. The Mothers' Congress of national scope is doing much to bring to the teacher the message from the home. The mother is saying, "there is my child; let us study him together." At the beginning there was no thought of studies in psychology. It is only upon the very broadest lines that the mothers and teachers have met—broad in the sense that the subjects touched the universal child. Methods of punishment have been discussed and changed to more nearly fit the offense. The subject of diet and its relation to work in the school-room has been discussed. Children are sluggish or alert as they are fed. The little boy who carried a cold buckwheat cake to eat at recess because he slept too late to eat it warm for his breakfast can hardly be expected to recite as well as the child who was up betimes and at his porridge slowly and satisfied his stomach before he left his home. The teacher does not always know of these conditions, but if she were to invite the mothers on a Friday afternoon this very careless mother may hear something that will cause the scales to fall from her eyes, until she begins to realize that it is a human soul she has to train, not merely a little animal.

In a few instances work has been lessened for home study. Teacher and mother understanding each other, the home duties have been curtailed that the child may have proper time for rest and recreation. In several instances reported teachers have become acquainted with the physical condition of children when it would not have occurred to them to look for physical defects, had they not met the mother. Small beginnings have led to wide study. Of course, one must take into consideration the class of patrons and act accordingly. Sometimes the teacher leads, and again the patron, and in the beginning it depends upon the leadership how effective the work will be. The various experience meetings that usually close the sessions are food for the teacher as the mothers tell of the home life of the child. She sees how her own work may be made easier in so many ways. Sometimes, alas! the good that is in the child must be pointed out by the teacher. Only a few weeks ago when a bit of hard work was pointed out by the teacher the mother said: "Oh, I guess you did it for him." The teacher replied: "No, John

did it all himself." That teacher will not soon forget the look of delight that poor tired woman gave her as she said, "I did not know John could do that." The home where the wash-tub was the most conspicuous article of furniture gave little time to find out what John could do—and here was the teacher's opportunity. Truly the child is greatest in teachableness, in faith, in love, when we consider him as a denizen of heaven.

Many reports lie before me from the various Mathers' Clubs and Teachers' and Parents' Associations throughout Pennsylvania. Who can estimate the good they are doing. Philadelphia reports the largest number of clubs. The membership is large and continually growing. Perhaps I can best convey to you an idea of the subjects under consideration by enumerating some of them. The Philadelphia Mothers' Club combines mothers and teachers and in its eight meetings has averaged an attendance of from forty to two hundred and fifty mothers and teachers. The subjects discussed were as follows: Habit Forming in Childhood, Character Building in the Home, Great Literature in Character Building, Rewards and Punishments, Moral Problem of Growing Girls, Amusements and Recreations, Constructive Training of Children, and the Problem of Growing Boys. Some of these subjects were discussed by experts, the women entering into the discussions that followed the principal speaker.

The Parents' Association of the School of Practice and Observation discussed subjects educational, school gardens and the reducing of home study as a matter of protection rather than development. Widely different were the subjects discussed at Williamsport when a piano was bought by the mothers in return for the use of the school magazines distributed and for special work done among the boys. Nervous diseases—why girls break down; the education of the spine; how parents hinder school work of children, etc. They reported about 1,200 mothers in the various organizations connected with the public schools. Bristol sent a report, as did the Garfield Building in Pittsburg. These reports show that in each community parents and teachers are working out their own problems in their own way, each striving along with the other for greater freedom for the children—more abundant life which we teachers and parents should bring to those with whom they come in contact.

It is hard to estimate what results have followed the organization of Parents' Clubs. Some communities have had real awakenings. The intelligent insight increasing, as it is bound to do, with every meeting together, has greatly increased the bond of fellowship between the parent and teacher, always to the benefit of the child.

The Mothers' Congress of Pennsylvania stands ready at all times to aid in the organization of clubs. A letter addressed to its secretary, Mrs. E. V. McCaulley, 2300 North Broad street, Philadelphia, will bring hearty response in the way of literature and practical assistance.

Mrs. Wilson was followed by Miss Anna Buckbee, of the State Normal School, California, Pa., who read a

REPORT OF THE INTERNATIONAL CONGRESS OF CHILDHOOD AT LIEGE, BELGIUM.

It will doubtless be recalled by all of you that the management of the Belgian International Exposition, held at Liege last year, arranged to have an international conference on the care and education of children both at home and at school. Committees of teachers and reformers in various countries were asked to co-operate in the work of enlisting members, and in the carrying out of a program. The meeting was appointed for September 18th to 20th, and these committees did their work so well that when that date arrived, more than 1,200 members had enrolled, each paying the membership fee of ten francs. This membership represented twenty-two countries. Some five hundred of the members attended the meetings of the congress, which were held at the university buildings in the quaint old city of Liege.

The congress met as four separate departments as follows: Section one, the study of children; section two, the education of children in the family; section three, the care and training of defective children; and section four, the different agencies for protecting children and youth. The second section was much the largest and consisted of three subdivisions. The first division considered general questions, the second took up various phases of care and education before school age, while the third dealt with education in the home during the school age.

A total of one hundred sixty-eight papers was presented. These were prepared and sent to the secretary early in the summer, and printed in full and sent to the different members, so that they could be prepared to take part in the discussions if they chose.

Since this is a meeting of a child study round table, I have thought it best to spend most of the time allotted to me in reporting the proceedings of the child study section proper, but before doing so I wish to speak

briefly on the work of the other departments, because the whole meeting was in the interest of children.

Taking up, then, the second department, I regret that I must hurry over its large and very interesting program. In the first division forty papers were presented, none of them by Americans. Some of the subjects were: The Peculiar Fitness of Women for the Work of Teaching; The School in the Home; Study of Children in the Family; The Hygiene of Clothing; Art in the Home; The Need of Popularizing Education in the Family, and Need of Instruction Concerning Sex. The meetings of this section were presided over by Mme. Lucie Goyare.

The second subdivision of this department was presided over by a woman also, the Baroness de Budingen, of Liege. The general topic was Education in the Home Before School Age. The following list of subjects shows the practical character of the problems considered: Spinal Troubles of Young Children; The Sense Training of the Young Child; The Cultivation of the Will; The Relation of Play to Education, and The Question of Kindergartens. But one American appeared upon this program.

Education in the family during school age was the central thought of the third subdivision, with thirty-three papers presented. Two Americans took part, one, Professor Edwin Grant Dexter, of the University of Illinois, had prepared a paper upon "The Effects of Weather upon the Child," and Mrs. Heller, of Omaha, upon "The Reinstating and Vitalizing of the Home as a Factor in Education." Indeed, fourteen of the papers urged in one way or another the bringing of the home and the school into closer relation.

It was impossible for me to hear any of the proceedings of the third section, therefore I shall simply quote entirely Professor Will S. Monroe's account of the program of that section, as published in the New York School of November 4, 1905. The third section of the congress was concerned with the education of defective children. Forty papers bearing on the education of the blind, deaf, feeble-minded, juvenile delinquent, abandoned and neglected, were presented by representatives from most of the countries of Europe and America. Five Americans presented papers: Miss Anna Gamewell, of the Reform School at Glen Mills, Pa., on the Education of Juvenile Delinquents; Mr. Charles L. Brace of New York city on the Care and Training of Truants and Incorrigibles; Miss Mary S. Garrett of Philadelphia on Speech Instruction of the Deaf, and Director Michael Anagnos, of the Perkins Institution for the Blind, on the Need of Culture in the Education of the Blind. Two distinguished English alienists—Dr. George E. Shuttleworth and Dr. Fletcher Beach—read papers.

The fourth department of the congress discussed various agencies for the protection of children and youth. Thirty-eight papers were presented, two of them by Americans. Judge R. S. Tuthill, of Chicago, wrote on the nature and workings of the juvenile courts of the United States, and Professor C. R. Henderson, of the University of Chicago, gave a resume of the various movements in this country for the protection of children in the family. Eight of the papers presented before this section dealt with the temperance problem and the need of instructing children in the effects of alcohol and other narcotics. Two papers treated of the tobacco habit; and while the writers of these papers did not advocate just the same plans of instruction that some workers have in this country, yet it was gratifying to find that extremely scientific treatment of the topics did not prevent a strong personal interest in each individual child.

The social purity of the young was the subject of a strong paper by Henri Hayem, secretary of the French League for Public Morals. Four other topics before this section, in which I was greatly interested, were: Measures for the Prevention of Cruelty to Children, The Prevention of the Spread of Tuberculosis among Children, School Journeys, and Vacation schools.

Returning to the first department of the congress, that of child study, it was presided over by Professor J. J. Van Biervliet, of the University of Ghent. Sixteen papers were presented, ten from France, four from the United States, one from Holland and one from Belgium.

The Americans were: Professor Will S. Monroe, of Westfield, Mass., who traced the history of the movement in this country during the last twenty-five years. He spoke of the methods employed, and the results obtained. Under the latter head he made the following points: (1) Greater interest in children and all that pertains to their mental habits; (2) more careful scientific investigation of many of the physical factors conditioning the development of the young; (3) study of children's interests, and the partial reconciliation of elementary school courses with the same; and (4) the formation of mothers' clubs and kindred associations for promoting the welfare of the child.

Professor Wm. H. Burnham gave a most valuable paper on school hygiene. He

pointed out the several signs of progress in this direction as the appointment of school medical inspectors in large cities, the establishment of separate schools for dull children, better provision for school lunches, the providing of vacation schools, school playgrounds, school baths, and the better lighting and heating of schoolrooms.

Miss Harriet A. Marsh, of Detroit, Michigan, wrote upon the subject of child study in special clubs, especially those composed of fathers and mothers. Her paper ought to be printed in English and widely distributed.

My own paper was merely a resume of what is now being done in the various normal schools of the United States, as shown by the answers to my circular letter of inquiry, addressed to nearly all of the normal schools of this country. As a result of my summarizing those letters, and of my work with our own students, my conviction is that the students of our state normal schools are too immature to do serious work in this direction; and the teachers are not likely to make many valuable contributions as long as they do from twenty to thirty hours of actual classroom work.

Four papers presented by French members of the congress related to anthropometric studies of children, made by the French society for the study of children. The points made are too technical for me to summarize in any adequate degree in the time at my disposal.

Among the important papers which aroused a marked interest at the convention was one by M. Laberthonniere, of Paris, upon the utilization of psychological experiments in educational practice. The writer recognized distinctly that educational practice should have a scientific basis, and that psychology must furnish that basis, but he maintained that the spiritual side of the child's nature should never be lost sight of. It would be well worth while to have his paper made easily accessible to those who read English only.

The two subjects before the meeting which seemed to me to be the most important, and to call out the most animated discussion, were mental and physical fatigue, and the closely related question of the methods of measuring fatigue. Professor Van Biervliet, the president of the section, presented an extremely able and interesting paper upon some phases of mental fatigue. He plead for more recesses and rest periods than we now have. Those who took part in the discussion agreed emphatically in condemning heavy requirements in evening study for children who attend school.

Professor Binet, of the University of Paris, was undoubtedly one of the leaders of the congress. He presented two important papers. In the one he urged in the most ingenious and plausible way that the esthetic reactions of children might be made the basis of a system of pedagogy. It is to be hoped that this entire paper will be translated into English and discussed at some future meeting. In Professor Binet's other paper he pointed out the necessity of psychologists co-operating with teachers, and he urged the organization of a permanent international committee to collect, summarize, and make accessible the results of observers and investigators in the various countries.

I have now touched briefly upon the main topics before the child study section. The conclusions reached as a result of the papers and discussions were formulated in a series of eleven resolutions, the gist of which I will attempt to give.

1. It was agreed to form an international commission of experimental psychology and pedagogy, as suggested by Professor Binet, and Professor Will S. Monroe was chosen to represent the United States.

2. As a result of considerable discussion of the value of the esthesiometer as a means of measuring mental fatigue, it was finally agreed that, "in spite of its scientific nature, the esthesiometric method of measuring intellectual fatigue has not yet furnished results sufficiently rigorous, nor carefully enough verified for final acceptance; therefore the child study section of this congress demands that a systematic plan be undertaken for the verification of these results before deducing from them general conclusions and practical applications.

3. It was resolved to use every effort to interest more people in the study of children, and to this end it was proposed:

(*a*) To provide courses in Child Hygiene and in the education of infants in the different schools where young ladies are educated.

(*b*) To establish evening classes for this same purpose, these to be open to all women and girls old enough to receive the instruction offered and to assist in making observations.

(*c*) To form child study circles of parents and teachers, which would both study the results already reached by others, and try to contribute something from their own study and observation.

(*d*) It was urged that normal schools should do far more than at present in the matter of child study, which is a very reasonable demand, when we remember what normal schools are for.

I would like to take time to add a few general comments.

First, I was very favorably impressed with the dignity, the earnestness and the professional standing of those who attended the congress and took part in its proceedings. Child study is often ridiculed as a fad pursued by a few so-called cranks; but in the midst of this first International Congress of more than five hundred delegates, with a paid membership of more than twice that number, one was compelled to admit that the study of children is entitled to at least very serious consideration by those interested in psychology and pedagogy.

In the next place, the very considerable part taken by women, both on the original program and in the discussions, was somewhat of a surprise to me; and the deference accorded to the American women present was most gratifying. The attitude of the congress was most encouraging in that the speakers had the true scientific spirit, and seemed more anxious to get light than to insist upon their own conclusions.

Finally, the practical character of the proceedings was evidenced by the provision for another meeting and in the plan for a permanent international commission. Certainly every one interested in this phase of educational work will be glad to know where to turn for accounts of the latest research.

On the whole the promoters of the congress regard this first meeting as an unqualified success in point of numbers and enthusiasm and in the variety and scope of the papers and discussions. After such a gathering one could come back to work in one's own little field with fresh hope and inspiration, feeling that one is helping a little to carry forward a great movement for humanity, in which the workers are many and strong.

In the discussion which followed the papers by Mrs. Wilson and Miss Buckbee, Professor Palmer said: We have held a number of mothers' meetings but find that they lacked interest. We have reached our most intelligent people. What can be done to make our meetings more interesting?

Mrs. Wilson: Make the reading and study of "The Study of Child Nature" by Harrison a part of your program.

Mrs. McCracken: We have had three mothers' meetings attended by one hundred and twenty-five mothers from different parts of Pittsburg. The discussion of nutritious foods at the first meeting did not appeal to those in attendance. We then took up such general subjects as A Good Home, Neglected Children, Children's Defects, etc., and met with better results.

Miss Ross: In Altoona mothers' meetings are held in connection with the Kindergarten each month. We have no difficulty in getting a large attendance. We send out invitations stating what the Kindergarten intends to do. Mothers are asked to hand in questions pertaining to difficulties in training children. Our meetings are very successful, and much good work is done.

Dr. Becht: Prof. Fleshman, have we emphasized the quantitative side of teaching too much? Is this a waste of time?

Prof. Fleshman: It is not entirely a waste of time, but we would get more satisfactory results by placing greater stress on the quality of instruction.

Prof. Dietrick: There is a danger in minimizing the physical education of the child on account of a lack of results. Mind cannot communicate with mind except through the body. Teachers should know biology and simple experiments should not be neglected.

Prof. Fleshman: What good is biology for teachers of arithmetic and grammar in a model school?

Prof. Dietrich: A great deal of good. Biology forms a basis of psychology, and psychology forms a basis of pedagogy. A thorough discussion of this subject is given in Dr. Bagley's "Educative Process."

Dr. Becht: We are open to the criticism that we do not accomplish anything in education. We come back to the same point from which we started. We should make child study the center of a problem and have our members work and report upon some specific lines.

During the business meeting following the discussion the officers of the Altoona meeting were re-elected for the ensuing year.

The committee appointed at the first session of the Child Study Department made the following report:

"1. That during the year 1906–7 at least three bulletins or leaflets of not more than four pages each be published and sent to those teachers actually engaged in active child study work, with a view of unifying this department and forming a nucleus of workers whose object will be to make the Child Study Department a real force in the education of the state.

"2. That the matter and form of these bulletins be arranged by an executive committee of three members, of whom the president should be chairman.

"3. That we encourage the organization of teachers' and mothers' clubs with a view of studying in a simple and practical way the pupils' physical needs and defects; mental peculiarities, particularly along the line

of sensory or motor tendencies and their correction, etc.

"4. That the teachers present at this meeting, sufficiently interested to be willing to help make this department a success by preparing papers, aiding in the discussions, submitting questions, or in other ways that may suggest themselves, will leave their names and address with the president, that the bulletins, as issued, may be sent to them."

This report was unanimously approved, after which the department adjourned.

HIGH SCHOOL DEPARTMENT.

TUESDAY MORNING, JULY 3.

THE sessions of this department were presided over by Prof. G. D. Robb, of Altoona. The department was scheduled to meet in one of the class-rooms, but the meetings were so well attended that it became necessary to move to the Auditorium. The first subject for discussion was

THE SCOPE OF THE HIGH SCHOOL COMMERCIAL COURSE.

Dr. Cheesman A. Herrick opened the discussion by stating the aims of such a course, setting forth that the course should be broadly educational. The commercial high school is in no sense a competitor of that familiar institution, the business school. The aim of the latter is to fit directly for a calling while the aim of the commercial high school is at the most to prepare for an intelligent apprentice. The high school is a community institution supported by public funds, and it should concern itself with broad policies of community needs and not the narrow aim of fitting any one class for a calling. A useful education can be given along commercial lines, and that without a sacrifice of the ends of culture. There is a tendency to abandon the shorter course and adopt a full four-year course. Anything short of this would cheapen this form of education and make the commercial course a haven for an inferior class of students.

The speaker then reviewed at some length the chief branches to be introduced into a commercial course and pointed out the differences which should exist between these branches in the commercial and other departments of the high school. Many of the general subjects—English history, modern languages and science—were recommended as useful in the commercial course, and in addition to special adaptations of these subjects it was shown that a sufficient amount of instruction in the technical branches of book-keeping, shorthand, etc., is possible, so that students will have a preparation to take hold in business and make themselves useful. In conclusion, the speaker pointed out that an education might be extended as to time and limited as to range, or limited as to time and extended as to range. "Commercial" is of the latter sort.

Discussion of this subject was deferred because of the lateness of the hour and the next subject on the program was taken up.

WHAT SHOULD BE THE AIM AND SCOPE OF THE HIGH SCHOOL COURSE IN GERMAN?

The paper on the above subject was read by Prof. H. C. Leonard, of the Wilkes-Barre High School, as follows:

The scope of a high school course in German depends on what a high school is; but I shall consider only a high school which covers the four years between the grammar school and the college, that is, the third four years of a student's life. The first four years should be spent in the primary school, the second four years in the grammar school and the third four years, while the pupil who enters school at the legal age of six is between fourteen and eighteen years of age, should be spent in the high school. Now the question is: What should be the scope of a course in German during these high school years? A one-year course in a foreign language should not be tolerated, so our discussion will apply to a course covering two, three or four years, and I think that practically the same work should be done at the beginning of a course without regard to its prospective length.

The aim of any high school course should be to give the best possible training to the powers most active in the pupil's mind at the high school age. I mean that, in formulating our ideal of attainment, we should think more of the pupil than of the subject-matter he studies; we should think more of the powers which the pupil carries away with him as a part of his being, than of the records which he leaves behind him. Our bases of formulating courses of study still contain too much subject-matter and too little psychology and almost no pedagogy. In framing our courses of study and considering the aim of certain courses we need to think more of boys and less of books. The only thing that can make one course of study better than another is its better adaptability to the mind-development of the pupils who are taking the course.

The aim through the first year of a course in German should be to train the eye and ear to form and the memory to meaning of German words. Vocabularies and

model sentences should receive especial emphasis; the primary meaning of a large number of words should be fixed by drill, oral drill to train the ear to sounds and written drill to train the eye to signs; in other words the pupil should be drilled to correct pronunciation, correct spelling and primary meaning of a large vocabulary during the first year, and a careful study of model sentences should impress upon the pupils' mind the way in which these words are used by Germans. The pupil will not be benefited by seeing how stumbling beginners use these words, *i. e.,* before syntax is carefully studied, so first-year classes in German should not be asked to compose German sentences. This fact should be kept in mind during the first year; we are now training eye and ear to form and memory to meaning and we want only correct forms and correct meanings until the powers of discrimination are stronger. During the first year and often through the second year in the high school the memory is the student's strongest faculty and we should take advantage of this fact by our method and accumulate a large working vocabulary of the most useful words we can find. Chiefly the benefit from this work will be the training of the memory, a part of education in which American schools are deplorably weak; and besides, it should give the pupil a knowledge of root meanings which will allow him later to fix his attention more closely on the other elements which determine the significance of a sentence. It is the bane of most language courses that students look up throughout the entire course the ordinary meaning of common words which occurred in first year work. Such bad habits waste time and tend to make the memory like a sieve, while the correct kind of drill will tend to make it like a reservoir.

The main object of the second year's work in German should be to train the pupil to the ability to read German. Besides continuing the training of the eye, ear and memory as in the first year, we should now train as much as possible the pupil's power of discrimination. As a means to this training, the secondary meanings of words studied should be noted and the syntax of texts read should be carefully studied. Here is the place where strong language work should be done. The student should learn to use all the means of arriving at the true meaning of German sentences. Primary and secondary meanings of words, inflections, position, context, derivation and composition of words, and cognates, should all be studied and their relative force and value in determining the true significance of the foreign sentence should constantly be noticed. I believe and maintain that stronger linguistic work should precede the literary work in all language courses. The study of Caesar, Cicero and Virgil as a means of undertanding Latin grammar is a woeful mix-up of means and ends, and it is no better to use the works of Schiller, Goethe and Lessing or even those of Storm, Riehl, Heyse, Seidel, Baumbach or Meyer for the same purpose. At this age and stage the pupil should receive training of memory and power of discrimination and not training in appreciation, so the work of the first two years in German should be linguistic and not literary. Both the mind-development of the pupil and the logical development of the subject-matter demands this order of procedure. This linguistic training should be based mostly on typical, graded German prose, uncolored by any literary style and untainted by any passion, action or diction which will mislead as to its meaning or distract the student's attention from a careful, consecutive study of the usual meaning and force of common German words and sentences. Neither classic nor modern literature should be read until the pupil has acquired the power, through rigid training in language, to read independently and intelligently the prose or poetry of that grade of difficulty. It should be the scope and aim of even a two years' high school course in German to give the linguistic training necessary to read intelligently the German language in its simplicity and purity. This training is from every standpoint the best that can be given to high school pupils. Linguistic training can be well adapted to the growing minds of younger high school pupils while literary training can hardly be successfully carried on below the last year in the high school. From the standpoint of the subject-matter, language training in general belongs to the high school and is the only basis for the successful study of literature later; and even if the student studies German no longer than two years, I believe that the linguistic training with pure, idiomatic German can be made as strong a factor in his education as any attempt at literary work with classic materials for dissection.

As the work of the second year is to train the pupil to read intelligently the German language, so the work of the third year, and of succeeding years, whether spent in the high school or college, is to develop the ability to read appreciatively German literature. It is much easier to talk about teaching appreciation than it is to teach it, so I will illustrate the principle here involved as I see it.

In the study of the history of civilization

we read that man first spent his energy in procuring substance to satisfy his material wants. As long as his means of doing this were so cumbersome that it took all his energy to procure this maintenance of physical life, there was little or no progress in civilization, no culture of the human race. But when through the division of labor, inventions and settled habits, man could supply his material wants by spending only part of his energy, he used the remainder to civilize and cultivate himself. Culture is possible only where there is energy to support it. Now, applying this principle to language study in its broad sense, I get this condition: If the student is to get the cultural value from the study of literature he must not be obliged to spend all his energy on the purely language side of his classic. If the work of the first two years is done as is suggested in this paper, the class may shift its bearings, so to speak, in the third year and get more on the thought side of the text in hand, but this position should never be assumed until the vocabulary and syntax have been mastered by the pupil. There is but little gained when a teacher tries to teach literary beauty while the pupil is floundering in textual difficulties. Each kind of work should be kept in its place, and *done* in its place.

For the first year in German the watchword should be *accumulation* of vocabulary; for the second year the watchward should be *discrimination* of exact meanings; and for the third year the motto should be *interpretation* of the best literature. It may well fall within the high school course to study some masterpieces in German when the student reaches that stage in language and literary study; but foreign literature should not be studied instead of nor in advance of, native literature. The ability to use good English and to appreciate its best literature is worth too much to be relegated to a place after any foreign language study.

Is the plan suggested here feasible? Yes, it is. I will consider, with your kind indulgence, that it is not out of place here, but rather *in* place to tell each other our personal experiences in school work and our views regarding the results obtained. I have taught German for the past ten years and for the past six years I have pursued the work as outlined here. For the first two years texts are chosen on account of their purity of German diction and linguistic excellence rather than their literary or rhetorical beauty. And here we work hard learning to read German. As far as language work is concerned the students in second year German must ascend the steep part of the hill and it is a necessary qualification for passing on to the literature that the student shall be able to read and translate texts about as difficult as most of the commonly-read texts of Storm, Riehl, Benedix, or Schiller. Then in third year work I have taken up a comedy and studied the conversational style, a short story and studied the characters, then William Tell and studied all the literary qualities that the ability of the class would permit. And I have always found this to be true, that the students who had the ability to read the text when they took it up have made good progress in their literary study and appreciation of the poetic qualities, and no others. When we study language we emphasize language and when we study literature we try to enjoy it as literature. For instance, when we read Immensee we ask no questions about the dative case or the use of prepositions. That work has preceded. In the graduating class of the past year we studied those simple, beautiful, suggestive pictures which pass before the mind of the old man as he sits with folded hands while the pale moon-beam passes across the frame and the picture of Elizabeth. The characters of Reinhardt, Elizabeth, Eric and the mother all stood out so real that we loved and pitied them. When we read the last sad chapter where Elizabeth said, "You will never return," and Reinhardt answered "Never," there was breathless attention and many eyes were filled with tears. The fates of these people were as real to the pupils as the fates of schoolmates. Many wanted to discuss the various phases of questions that arose in the action. Some pupils asked their parents for a copy of Immensee in German as a graduation present. The girl that had the German oration at the commencement wrote on the causes of Elizabeth's unhappiness and I felt that I had secured a very gratifying result of my efforts, for all the class loved Immensee. I believe that if the proper linguistic training in German is given in the first two years a majority of most classes can be led to see the beauty of many of our classic gems. This, by all means, is worth while. Our boys and girls show the flower and fruit of all their education and all the efforts toward their culture as much by what they love as by what they know. I should not be content to pass through even a three years' course in German with a bright ambitious class of young Americans and not touch them at all on the culture side. It is a great point gained if we can aid young people to begin to love what is good and noble and true. So let me conclude this paper by saying it should be the aim and scope of the high school course in German

to train the pupil to read intelligently the German language and to begin to read appreciatively the German literature.

Supt. Phillips, Scranton: I agree with the first speaker in much that he says; but poor spelling is to be found in other departments than the commercial. And anyhow, are we not criticizing our teaching of spelling unjustly? In Springfield, where records of questions and results of examinations have been kept for fifty years, these facts have come to light: Whereas in 1844, forty per cent of the work turned in was correctly spelled, in 1906 fifty-one per cent was correct. The results in arithmetic showed a similar improvement. Sixty years ago twenty-nine per cent of the work submitted was correct; in 1906, sixty-one percent. The same questions were used in the 1906 tests as sixty years ago. This would seem to prove that children spell at least as well as they ever did and are as well taught. We have wisely lengthened the commercial course to four years. I believe in giving this course all the dignity possible. The work in English ought to be the same as in the other courses. I have spoken only of spelling because we are apt to magnify the work of the past and forget the good work of the present. I am interested to know that the two and three year courses have proved unsuccessful as compared with the four year course. Many people feel that making the course so long defeats its object. In our first year the course is fixed; in the second year studies are elective. It has repeatedly forced itself on me that the short course is of no value even from the mere standpoint of money-making, the pupils graduating too young to be employed. Students graduating from other departments who subsequently took the commercial course have proved the most successful. We are now conducting a four year course without opposition.

Mr. Paul Kreutzpointer, Altoona: The commercial course ought to be enriched by the study of trade conditions. I have heard complaints of the ignorance of American agents concerning the conditions in the countries where they try to do business. As an instance of this I might relate the experience of a traveling man who represented a furniture house in Michigan. He went to a certain town in Mexico, but as he did not understand trade conditions there and could not speak Spanish, having continually to secure the services of an interpreter, he sold nothing. A German salesman came there the next day, a man who understood trade conditions in that country, and who spoke the language of the people, and sold $10,000 worth of goods.

Adjourned.

WEDNESDAY MORNING.

In referring to the papers of the preceding session, Dr. Stahr said: Yesterday's papers were good; but I felt at the time that there are two aims in the study of German. If the object is to know the literature of the language, then the method of the author of the paper is right. But after all a living language ought to be spoken, and to that end the student must be required to formulate thought in that language.

ARE THE COLLEGES DEMANDING TOO MUCH OF THE HIGH SCHOOLS?

Prof. Adams, of Millersburg: At the Williamsport meeting of the High School Department Miss Matthews, of Altoona, bewailed the fact that the college entrance requirements in mathematics are so extensive as to preclude the possibility of intensive work. I have heard the same criticism from teachers of other branches. Dr. Balliet has said that the present college entrance requirements are absurd, and that until a tree grew from the top down the colleges should not attempt to dictate to the lower schools what they ought to teach. This is an acute problem in most places where there are small high schools. The unpleasant situation has grown out of the complacency of the high schools themselves. Thirty years ago the college courses were not equal to the courses of good high schools to-day. So rapidly have they grown that the college and university ideas have become confused and there is a great tendency toward extremes. The high school considered as the third four years of the pupil's school life is the connecting link between the high school and the college. But some high schools have been stretched out of shape in trying to fill this position. To meet college entrance requirements is the highest ambition of some high schools. Now the college has the right to make any demands that it wants, but the small high school will sacrifice the interests of the great majority of its pupils if it makes the meeting of these demands its foremost object. I believe that the main purpose of the high school is to lead the pupil to prefer the higher life rather than to make a fine living. It is of more importance for him to know how to use his hands than to relate the love affairs of Dido. I believe that there is as much educational advantage to be derived from the one as from the other. President Eliot says that he could not pass

the entrance examinations to Harvard. Probably Harvard has come to realize this ridiculous condition of affairs, and concessions are being made to high schools, although as yet not enough have been made. Now, what is the reason for this state of affairs? It is that the high school side has never been heard from. Let the high school people, therefore, unite and see if we can not bring about a change for the better. The colleges are demanding too much, not from the larger high schools, perhaps, but certainly too much from the smaller ones where the greater number of pupils are to be found. The trouble can be settled only by representatives of both institutions getting together and working out a plan. If we can harmonize the work of the college with the work of the smaller high school the student will graduate just as well and the college will do no less work. The present evil in our small high schools is that in attempting to meet the present college entrance requirements the work becomes too extensive. The present requirements ought to be changed.

Prof. Wallize, Milton: Are the colleges demanding anything of the high schools?

Prof. Long, Bedford: I agree with Mr. Adams as to the practical working of the smaller high schools. The pupils who are preparing for college get the chief attention and the others suffer. And yet the community demands that the high school fit pupils for the college.

Prof. Leonard: Of what are the colleges demanding too much from the high schools? Too much subject-matter? That may be. Too much mental development? No. The college is compelled to state its requirements in units of subject-matter, and the high school teacher must crowd the children's memories even to the point of disgust in order to cover this ground. If this situation is brought about by what the colleges demand then the high school is doing too much for the college. The business of the high schools is to get on to a sound psychological basis for high school teaching, and develop mind, not cram for college. I have seen college entrance questions that left practically nothing for the college to do in that subject. All the work was to be done in the preparatory school. We high school teachers must have nothing else at heart than the welfare of our pupils, whether we meet college demands or not.

Prof. Wilson, Milton: We ought to distinguish between college and university requirements. I think that the better class of high schools are meeting the requirements of the colleges. In my high school we pay no attention to college demands. We have no business to have a college preparatory high school—to spend the people's money for the preparation of a few pupils for college when the greater majority never go there. It is our business as high school teachers to get near to the people and give them what they want.

Prof. O'Day, Honesdale: Until we have a better method of measuring intellectual attainments there is no other method of stating college entrance requirements than in terms of subject-matter. I think that the smaller high school ought to prepare for college. What is good training for the would-be college student is good training for the pupils who stay at home. The colleges are really demanding nothing of us, but we ought to measure up to their requirements. Do you remember any pupils from any of the smaller high schools who have done poor work in college? I do not. That tells the story.

Dr. Stahr: In the *Atlantic Monthly* there was published several years ago a scathing article on the subject of college preparation. The author took the ground that teachers thought only of college entrance requirements and their teaching degenerated into mere cramming. There is some force in the author's criticism, and I should like to remind high school teachers of what Mr. Henderson says in his book, Education and the Higher Life,—"Education is a process that must be taken as a whole." There should be no attempt to separate moral and physical from intellectual development in the training of the child. All grades of school work ought to be correlated so that there would be no jarring when the pupil goes from one grade to another. The colleges ought to lay down their requirements with that thought in mind. The high school course ordinarily contains too much for the college preparatory work to be well done. There is no necessity for the boy who is to take up certain work in college to be compelled to study the same branches in the high school. All high school pupils ought to study the same branches at the beginning of the course, but the work ought to be differentiated during the later years. Do the colleges demand too much? I have been looking over the requirements of various colleges and universities, and I think that their requirements are rather too high. They should not require so much work, and should conduct their examinations on such a plane that you and I, Mr. President, could pass. If this were the case, then we could get the high schools to prepare pupils for entrance without any trouble. I am glad that there is a tendency to co-operate.

I have been working for that for some years.

Prof. Adams: Dr. Stahr has got at the kernel of the question. I am glad that he admits that the requirements are too high. One speaker on this subject said that we will not be doing justice to the tax-payers if we prepare pupils for entrance to college. My experience has been to the contrary. There is a demand that we shall do just that.

Prof. Armstrong, Pittsburg: College entrance requirements are unreasonably high, both in the amount of subject-matter and mental development required. Our textbooks, too, are written by college men and not from the standpoint of the secondary school. High school teachers ought to rise in displeasure and tell the college people that they are demanding results from eighteen-year-old pupils that they themselves do not get from men of twenty-one. The colleges assume a mental grasp on the part of high school pupils that they do not have. If the college wants to know the power of high school pupils let it take the opinion of the high school teacher. That would be of more value than any form of certificate. High school men are honest and know their pupils, and a letter from them would be of more value than an examination.

Prof. George: My experience is that the colleges demand more than it is in the ability of the high school pupils to do well. They must be driven to the utmost in order to reach the mark. After entering the college the work is easy. My graduates often tell me that they do not have to work nearly as hard after entering as they did in my school. It is demanded of our school that we prepare for given colleges and even universities. We do it. But to my mind the work is too heavy for pupils of that age, and the standard in the colleges themselves is too low.

Prof. Dysart, Pittsburg: We have been speaking of the relation between the high school and the college. There is also a lack of co-ordination between the big and little high schools. Many of the smaller high schools are pretending to do more work than they can in their short term with their inadequate equipment. They ought to frankly acknowledge that they can not do the work of the larger four year high schools, and agree to do three years' work of the four year course, and do it well. Then pupils who wished to do so could take the last year in a larger school, if they wished to prepare for college, and there would be no confusion.

HOW MUCH TIME SHOULD BE DEVOTED TO GRAMMAR SCHOOL SUBJECTS IN THE HIGH SCHOOL?

The author of the paper on this subject being absent, the general discussion was entered into at once.

Prof. Ashby, Elizabeth: This question is of more importance in the smaller than in the larger high schools. In my section we need a great many teachers, and the high school graduates do the work. Our question is how to arrange our work so that some of our pupils can go out as teachers, some as office clerks, and some as college students. We have no difficulty in preparing pupils for college, but to do all of these things is a difficult problem.

Prof. Jones, Chester Co.: Our people want the pupils prepared for business life principally, so I devote some time in the junior and senior years to a review of the common branches. I do this because I found that the graduates from many three year high schools could not pass a teacher's examination. My pupils can.

Prof. George: I am much in favor of the review of the common branches in the high school. I begin these reviews in the freshman year and think I get better results by beginning them there. I give this work not only to those pupils who wish to prepare for teaching, but to all. In ten years not one of our pupils has applied to Supt. Hamilton for a certificate and failed to get it. My opinion is that it is wise to review the common branches in the high school, whatever may be the end that the pupil has in view.

Prof. Wagner, Bellefonte: What grammar school subjects would you review in the first year of the high school course?

Prof. George: With college and business students, arithmetic and grammar; with pupils preparing for teaching I would add history.

Prof. Jones: How do you review—throughout the term or all at one time?

Prof. George: I carry along the reviews throughout the term.

Prof. Ziegler, Ashburn: To me the real question is to make the pupils think. It is not hard to cram pupils so that they can pass a teachers' examination before they are seventeen years old. But they will not have learned to think. In our school we do not care so much whether the pupil has done so much of this or that, but whether he has learned to think for himself.

Prof. J. A. Dixon, Newcastle: What is the length of the course in Prof. George's school?

Prof. George: Three years.

Prof. Dixon: Do your pupils go to college on your certificate?

Prof. George: Yes.

Prof. Dixon: We have hard work to prepare pupils for college without doing any grammar school work. In order to solve this question we must differentiate after the first year. There is no good reason why all pupils should take the same course.

Prof. Robb at this time announced that the regular meeting of the High School Department would occur in Williamsport, Dec. 27th and 28th, 1906.

Adjourned.

THURSDAY MORNING.

The session was devoted to a round table discussion of the question

THE TOWNSHIP HIGH SCHOOLS AND THEIR PROBLEMS.

In the absence of Prof. Robb, Prof. Davis, of Steelton, took the chair and introduced the leader of the discussion, Prof. Milford F. Pletcher, of Blanchard, Pa., who read the following paper:

The township high school is a great benefit to the rural districts in the line of education and in raising the standard of citizenship. While these schools are open to criticism, I have failed to see how the same good can be accomplished through any other medium. You will have to pardon me in opening this discussion if I refer to my own school, as I am more able to speak of it than any other, although I have tried to find the problems which confront a number of these schools throughout our section. Some of these exist not only in the various township high schools, but in the borough and city high schools as well.

The course we have aimed to follow is the one laid down for us by our worthy state superintendent and which seems to meet the approbation of our section. In our school we carry arithmetic through the whole course and give especial attention to the common branches in the last ten weeks of the last year, although the course is pliable, so as to meet the demands and do the greatest amount of good to the greatest number. As it seems impossible to have an elective course in a school with but two teachers, yet we can, by consulting the pupils, do much to help them along the line of their various chosen professions.

I will endeavor to give some conditions which, though to you they may seem easy to solve, yet, when advanced by a number of prominent citizens in a community, make a serious proposition to overcome, and the organization is greatly impeded. In a number of communities the critics have said that "the high school should not be established because it is not practical, that is, the branches taught are not necessary for the average boy or girl to know in order to follow the ordinary vocations of life." These critics say: "The expense incurred is too great, and the outcome will not justify the investment. The time used in studying these various branches is lost. The high school question will die out after some of the teachers find they can not create new positions for themselves by which means they can increase their salary." After these conditions have been discussed pro and con, the decision being generally favorable to the high school, one important question yet remains and that is, the location of the school. This often causes much jealousy and has proved almost disastrous to some schools, as without the support of the entire district the school is at a great disadvantage in many ways. I find this dissatisfaction in my community, and one of my hardest tasks has been to get the citizens of the district to understand that it is a district school, not a local school, where all in the same district will be given and have been given equal rights and privileges.

It may be that by this time the school has progressed far enough to have its first class graduate. Then comes the question which has been discussed here so much: What attainments have the graduates? What are they fitted for? The critic may have a boy or girl to graduate whom he expects, after this great amount of knowledge has been given him at this great expense, to walk out into the world and immediately become a genius. He should be able to enter any college, pass any teachers' examination and then be urged to accept any position which the community considers important. When this does not take place the school is roundly condemned as an expensive luxury, and of no use whatever. These conditions gradually disappear. The plan of the school is understood and then the teacher can devote his entire attention to its curriculum.

A question that is worthy of consideration is, How to grade, or rather, what standard should he set for admission into the high school? The pupils coming from so many different schools in the country, from so many different teachers, present many problems for the high school principal. Some of these pupils have been taught by teachers who make hobbies of certain branches, and thus are unevenly or inharmoniously developed. Centralization, district supervision, and other means, I believe, will very materially help to solve this problem. Whether or not

these high schools are attempting too much remains to be seen; but I feel proud to say that I have seen boys attend these schools, traveling on foot ten miles per day, graduate, secure admission to some of the strongest colleges, compete successfully with their city cousins and even become honor men.

Another great tendency is for those who graduate from these schools to enter the teaching profession without any professional training. While the high school graduates are honestly winning, I believe, a preference over some of the teachers who have not had the advantage of the higher branches, yet I do not believe the mission of these schools is to train teachers; and therefore, because the course is not thorough enough, this tendency should be discouraged. Time will, I believe, solve all of these problems to the benefit of all who are concerned in the work of education.

Question: How do you get your pupils to school?

Prof. Pletcher: The pupils find ways to get to school themselves. Two boys walked ten miles daily to attend our school.

Question: Is it not better to have centralization than a township high school and scattered graded schools? In the latter case there is always the difficulty of classification when the pupils come to the high school, because the different teachers have their own particular hobbies and the pupils are specially prepared along that line. This matter can be regulated in boroughs and cities, but it is difficult to reach in rural communities. Another thing: Where there is a borough in a township it would be a good thing to have the township join with the borough in sustaining a high school. Sometimes a feeling of jealousy interferes so that nothing can be done; but if the thing could be worked there would be a great gain to both parties to the contract.

Prof. Martindell, Humeville: We have had pupils conveyed to our schools by trolley. The trolley service costs us about $500 per year. We have thought that the conveyance of the smallest children for considerable distances was a mistake. There is always some danger from exposure. By small children I mean those who are taking the first six years' work. For such it would be better if they attended school in their own immediate neighborhoods.

Prof. L. M. Jones: Whether a township can maintain a high school is not a question. The point is whether they want to. I have known townships where the people were at first opposed to the high school idea, but after a little experience changed their minds entirely. I have known cases of pupils renting rooms and taking with them every week enough provisions to last for a week in order that they might attend a high school. This question, however, I should like to have answered. How are pupils admitted to your high schools—on the examination of the principal or of the county superintendent? In our township the pupils are admitted on the examination of the superintendent. This makes it very nice for the principal, who is thus relieved of all responsibility in the matter.

Question: Does not the Act of 1905 say that the principal must examine?

Prof. Jones: The Act says that he must examine the pupils that come to the high school from his township.

Supt. Hamilton: The Act says that the only requirement for admission shall be an examination for admission by the principal if the pupils come from outside districts. The inequality of pupils who apply for admission to the high schools can be overcome by extending closer supervision. Let the township high school principal have the supervision of the seventh and eighth grades in all the schools of his township. Let him examine the pupils, and this lack of uniformity will disappear. The question of township high schools in Allegheny County is different from that in most counties. Our county is densely populated and the pupils from rural districts attend the borough high schools. This is the best solution of the difficulty where it can be carried out.

Prof. George: Supt. Hamilton's suggestion as to the high school principal examining the grammar school pupils of the township is a good one. I have done it. For the last two years I have sent the questions for six or seven tests a year to the teachers of the different schools, who themselves conducted the examinations and sent some of the papers to me. This kept the outside schools in touch with the high schools and produced good results. It also helped the pupils in that when they came to the high school they knew about what to expect. If townships could be united with boroughs much better work could be done for both. We recently had an examination for admission to the high school. Out of 54 applicants 22 were from the surrounding townships. Others will come from nearby boroughs. This is a help to us and to the townships and boroughs. Because the greater number of pupils we have the better courses we can offer and the stronger faculty we can employ. Last year the tuition fees of outside pupils in our school amounted to $1,665.

Supt. Hamilton: The present law as to township high schools is unjust. It ought

to provide that any little township which has no high school of its own and sends a pupil to the high school of a larger township shall have the state appropriation rather than the township which has the high school. The Act is unjust in that it discriminates in favor of the larger townships.

Supt. Condron, Blairsville: The difficulty that we encounter is that townships where there is a short term will not pay the full tuition of the pupils whom they send to high schools where there is a longer term.

Supt. Shipman: We have several such pupils. The pupils in the high schools were paid for in full. For the pupils in the grades the charge for the extra tuition was struck out by the township boards. This is in accordance with a decision by State Superintendent Schaeffer.

Prof. Wilson, Milton: We have collected the entire tuition from the parents of such children and they have sued the school boards.

Prof. George: Our townships pay without question.

Prof. Davis: We have the same experience.

Supt. Shipman: What is to be the basis of the charge for tuition? Is it to be according to the grades, or is it to be a fixed charge?

Some one: We put the high school tuition as low as possible.

Prof. Wilson: We raised it. We did not want to encourage outside townships to send their children to us.

Some one: We want to encourage such action. We charge only $2.25 per month. This helps us to sustain our school.

Supt. Hamilton: Pittsburg charges $10 per month.

Prof. George: We charge $5, which is less than the cost.

Prof. Creasy: Has there been a legal decision as to the payment of tuition of pupils who attend a school in a neighboring township where the term is longer.

Supt. Shipman: The decision of the State Superintendent is binding until there is further legislation.

Supt. Hamilton: In my judgment the State Superintendent's opinion is worth nothing in a matter like this. There has been no decision of the courts. It is equity that the extra work should be paid for. Many questions will arise under that Act. The conditions were not understood when it was framed. Sometimes there is a district which has on one side of it a township maintaining a high school where they charge $5 per month, and on the other side a township where the charge is $10 per month, and the parent can decide where his child is to go. Another question that arises is this—if a district maintains a two-year high school, must it pay the tuition of such children as wish to take an additional two years' course in a four-year high school. The courts must decide.

Some one: The Act says "nearby high school." We think that means the nearest.

Supt. Hamilton: I am not sure of that.

Adjourned.

NATURE STUDY.

IN the absence of Miss Goodenough, president of the Nature Study Department, because of death in her family, City Supt. Charles S. Foos presided at the meeting of this department held at 8:30 o'clock Thursday morning.

The first paper was by Prof. George Parke Singer, of the Department of Science, Central State Normal School, Lock Haven, upon

NATURE STUDY IN ITS RELATION TO NATURAL SCIENCE.

"Now what I want is facts. Teach these boys and girls nothing but facts. Facts alone are wanted in life. Plant nothing else and root out everything else. You can only form the minds of reasoning animals upon facts. Nothing else will ever be of any service to them. This is the principle upon which I bring up my own children and this is the principle upon which I bring up these children. Stick to facts, sir." So Dickens, the master of pedagogy, introduces Thomas Gradgrind, "A man of realities, a man of facts and calculations," the chief personage in "Hard Times," which was written as Dickens's earnest protest against the science then taught in English schools.

I fear the story of Sissy Jupe, the jocky's daughter, and her experiences in Gradgrind's school has far too many parallels in our own schools to-day where the nature study period is too often used for instruction in elementary science which the teacher has read from a so-called nature-study book and which she demands to be reproduced in an oral or written lesson.

How shocking that Sissy could not form a definition for a horse when the master called upon her the first day she was a pupil in the school! What appalling ignorance! And how scientific the answer of Bitzer, the bright boy: "Quadruped, graminivorous, forty teeth, namely: twenty-four grinders, four eye-teeth and twelve incisors, etc., etc. Hoofs hard but requiring to be shod with iron; age known by marks

in the teeth." Sissy Jupe not know what a horse is? Why she knew everything about their habits and dispositions; loved them dearly, as they had been her daily companions for years. Well might Gradgrind, Bitzer and M'Choakumchild sit at her feet and be instructed by her on this subject from the standpoint of nature study, than to hold her up as an ignoramus in the facts of natural science.

Prof. C. F. Hodge, author of Nature Study and Life, thinks that the "greatest difficulty just now in making clear distinctions between nature study and science is concerned with the purely scientific training of the teachers. They have had technical biology, or botany and zoology, either in college or at normal schools under college educated instructors. They have not been given the nature study point of view, and consequently when they are called upon to give lessons on plants and animals they have nothing else and consequently can teach only college science. This situation has drawn the dreariest train of absurdities in its wake to be found in our whole educational system, lessons (?) in the classifications of animals and plants the students have never seen or heard of, technical details of form and structure which, with the difficult terminology, are wholly meaningless and unrelated to any interest of either the children or the community.

Prof. Hodge makes a strong plea for the nature study that will bring the child out at the age of fourteen with a genuine and abiding love of nature and says that the thing that has stirred him to the quick in this whole subject is the hatred and consequent abuse of nature which Gradgrind methods develop in the child.

Dr. H. W. Fairbanks, of Berkeley, Cal., says: "The term nature study may be appropriately used for all that direct observation and study of natural phenomena which belong to the province of the elementary school. Nature study has to do with the raw materials of science, but is not science as that term should be used. It is not even elementary science if by science we mean the co-ordinating, arranging and systematizing the facts of nature. Facts will be acquired, but that is not the main object. There should be a gradual shifting of emphasis in nature study throughout the elementary school. The distinction between nature study and science is most marked in the lower grades. Here the emphasis is laid on the side of interest, upon the training of the mind and senses, and the materials used should be from the home environment. In the more advanced portion of the course, although the subject should still be developed from the side of interest, there must come an increasing use of the reasoning powers, and a greater value must be attached to the choice and use of material."

Dr. F. L. Stevens, of the North Carolina College of Agriculture and Mechanical Arts, believes that "sciences deal with fundamentals and it is a necessary consequence that any elementary course in a given science is much like another in the same science. The principles to be taught are the same, the method chiefly varies. Nature study, on the other hand, does not deal with fundamentals. It concerns itself with details. Fundamentals are few, details are infinite. One of the greatest differences between science and nature study rests upon these facts. They are fundamental and they will operate to retard if not to prohibit forever any rigidity in the nature study outline. The great variation in the subject matter gives almost limitless plasticity to the course. The function of nature study is to increase interest, to awaken the powers of observation and to open the eyes of the child that he may see the beauties of nature that abound unrecognized about him. The difference in motive between the sciences or arts and nature study is therefore fundamental."

Dr. M. A. Bigelow, of Columbia University, makes this distinction between nature study and natural science: Here is the difference: Nature study which in its subject-matter is only a modern educational form of the old-time general natural history, deals with facts primarily for their own sake without particular regard to organization into a system. On the contrary modern natural science deals with facts primarily as they are related to generalizations, or, putting the whole matter into other words, nature study appeals to us esthetically and morally. We feel the value of acquaintance with natural objects and processes without perhaps being able to state the reason why; but natural science appeals to us intellectually and philosophically. We measure values of facts according to their relations in our system of knowledge. We see that the difference is in the view-point, rather than in the materials, but so far as the studies of nature concern the earliest stages of education and popular information it is obvious that the difference is a fundamental one."

We have quoted rather at length from a symposium in the *Nature-Study Review*, Vol. 1, No. 1, in order to lay clearly before you the views of a prominent educator in each of the four geographical sections of the United States so as to eliminate any sec-

tional bias. That the under-current of these opinions tends in the same direction is one of the most hopeful signs of the nature study renaissance inspired by the work and writings of Hodge, Bailey, Brightwen, Blanchan, Chapman, Burroughs, Jordan and many others as opposed to the dilute allopathic or attenuated homeopathic doses of sciences which some years ago were catalogued as nature study.

In recent years there has not been a meeting of the Science Teachers' Associations or Departments of Nature Study in the Educational Associations where considerable time has not been devoted to the discussion of this subject, and with profit to all earnest teachers. Let us hope that, in the interchange of ideas and recital of experiences of those present at this conference, something at least of permanent value may be added to the sum of knowledge as to the relations which ought to exist between nature study and natural science, relations which it seems to me are and ought to be in perfect harmony and accord.

In the model schools of most of the normal schools, nature study is well taught, generally under the supervision of the science departments. In many of our larger towns and cities and even in the ungraded schools throughout the rural districts of our state much good teaching has been done by enthusiastic lovers of nature study who have had some science training. If we could record and tabulate the experience of these, much of the problem before us would be solved.

Personally, I have to thank the hundreds of students who have been in my classes in physics, chemistry and botany during the last decade for many of the most interesting and suggestive facts I know with regard to nature. The fact that the first two subjects are not generally drawn upon for materials for nature study work, while botany and zoology are exhausted almost to the condition of a vacuum by some of the text-books, is my apology for indicating a few practical lessons which I hope may be suggestive and illustrative of my contention that nature study is most closely related even to physics and chemistry, the generally considered formal sciences. Is it not a fact that the home environment of every child abounds in physical and chemical facts which will appeal to his interest and curiosity equally at least with any facts he may note concerning plants and animals? The motion of the mercury in a thermometer brought from the winter air into the warm room; the motion of the water when the spigot is opened or when the pump handle is lowered; the movement of the kite or toy balloon are just as interesting to the child, if not more so, than the hopping of the toad, waddling of the duck, or snapping of the jewel-weed pod. The fact that "things in motion sooner catch the eye than that which does not stir" is as strong an argument for physical and chemical nature study as for biological nature study, as is pointed out in a paper read by Prof. Hallock before the New York Science Teachers' Association in 1904. (Bull. 28, Oct. 1905, N. Y. State Ed. Dept.)

In a class in science some years since, I was asked this question while we were discussing center of gravity: "Can you stand an egg on end?" Instantly my class was on the qui vive. My reply was that I could not and that I thought no one could unless they played the trick of Columbus. Imagine my surprise when the next recitation the students brought half a dozen eggs to my class-room and stood them on end on a pane of glass which was on my lecture table. Verily, to see is to believe. This I deem a valuable experiment in that it will catch the interest of every boy and girl in the school and very few will be content to give up until they too can balance the egg—an excellent education to the muscular sense, nerve control and patience. The cigarette smoker in the school can hardly succeed, which is a practical lesson in hygiene that will not be soon forgotten.

It is not the purpose in the nature study relation of this scientific fact to go into the details of center of gravity, unstable equilibrium or the laws of equilibrium. The visible fact that an egg will stand on end, and that, too, on the smaller end, and that the boy or girl can make it stand, is a strong appeal to the interest of the child and gives opportunity for the earnest teacher to draw out a good many principles as to correct habits of walking and standing. But first learn to balance the egg before you teach this lesson.

A young lady called my attention to an interesting modification of the Cartesian diver experiment of the text-books. A homeopathic vial half filled with water so that it floats when inverted in water is put into a pint flask filled with water and the flask tightly corked. The slightest pressure on the sides of the flask causes the vial to sink to the bottom, and it will come to the top or remain at the bottom or half way up, as the pressure is varied. I have never known this to fail to interest a class, and the important suggested lesson is that every boy and girl in the class will float in the water just as truly as the vial; that they cannot drown unless water gets into the lungs and makes them sink, therefore if

accidentally thrown into the water, teach them to lie on the back and not to breathe unless the nose is in the air, and the mouth is kept shut, for so they cannot sink. How much more valuable this lesson than any that can be taught about plants or animals?

Make children absolutely sure that they are floating bodies naturally and how quickly they will learn to swim. This experiment suggests also the swimming of fishes, the principle of the balloon, the fact that skim milk is heavier than new milk, in fact so many interesting things that the teacher can use it for a series of lessons, all valuable in the extreme in the after-life of the pupils.

A senior in our model school took a dozen large needles, a spool of thread and a small magnet to her class-room, had the pupils magnetize the needles by drawing them eye to point over the south pole of the magnet and suspend them in different parts of the room. Nearly every child perceived that the needles pointed in one direction, and the word north became a reality in his vocabulary. The teacher next took a small compass and told them of how Columbus used the knowledge they had gained by their needles to guide him in his voyage across the ocean when he discovered America.

It is needless to say there were ten interested pupils in that class, and when they were allowed to take the apparatus they had made home and asked to locate the north from their own yard their cup of joy was more than filled. Science, yes, but nature study emphatically of the true kind. Better that one lesson than a dozen of the pouring-in kind. The effect of catching the interest of that class lasted during the term and insured the teacher's success with a class which before that had proven rather refractory. One boy discovered that his needle would pick up bits of iron and steel, another that he could magnetize a second needle from his own needle. A third boy saw a surveyor laying down the line for a granolithic pavement about his home and recognized the needle in the transit.

A fourth saw a lumberman who wore a small compass suspended to his watch fob. A fifth was interested in the gun metal case worn by an electrician to protect his watch from the magnetism of the dynamos. So the wide-awake young Americans came in touch with much valuable information about things magnetic and electrical as well as the geographical lesson which was primarily intended.

A Florence flask with rubber cork through which passes a glass tube half-way to the bottom. Heat a teaspoonful of ammonia water in the flask and connect the glass tube with a pail of water by means of rubber tubing, when as if by magic in the eyes of the children, the water runs from the pail up into the bottle as high as they can hold it and plays in a fountain until the bottle is nearly filled. The idea of a vacuum and the principle of "suction" will suggest to the active minds the pump-siphon—sipping of soda-water through a straw and many of the interesting facts of pneumatics and hydrostatics.

Chemistry abounds with experiments many of which are entirely free from danger and intensely interesting to children. For example: A solution of sugar made by the children, a thread suspended in it and the watching of the growth of the crystals of rock candy; the same experiment performed with alum or blue-stone. A doll dressed with clothes dipped in cobalt solution, serves as a hygrometer—pink before a storm, blue in dry weather—and will make the children observant of other weather signs more related to their every-day life.

The chemical tablets which will enable the child to grow plants in the most unique positions—suspended by a cord in mid-air, in a sponge or luffa gourd, in a glass of sand or coal, cannot but be helpful aids to the school-garden work and work in elementary agriculture so often combined with nature study work.

I feel very strongly that much of the most valuable material for nature study lies in the realm of pure science, and that physics and chemistry abound in subject-matter which is often much more available and at smaller cost than the materials so frequently called for along the line of botany and zoology which have filled the nature study manuals.

My point is that the true nature study idea is for the teacher to use in the fullest way all science so long as the experiments and apparatus will awaken the interest of the child in the world around him. I believe that the science curriculum in the normal schools embracing as it does botany, zoology, geology, chemistry and physics, for the most part taught from the view of interest, will solve in the next decade the relation of nature study to natural science. The trained teachers who graduate each year from these schools will go to the elementary schools prepared to do original work in the nature study period and will not be tied down to the absurdities too often found in nature study outlines, supplied to the schools by enterprising publishers.

I have been astonished at the reaction

against science, as it has been taught in our elementary and high schools for a term of years, as is shown by the new crop of text-books in chemistry, physics, botany and zoology. Subject-matter, illustrations, press-work and binding all appeal to nature study methods of interest.

Now I confess that, personally, it went against the grain for me to accept the fact that my strictly scientific training, my technical physics, chemistry and botany would have to be somewhat discounted in my class-room if I wished to do what was really best for my pupils, but I am now thoroughly converted to the idea that if I get my pupils interested in these subjects in the spirit of nature study they will teach much better in the elementary schools than if I harass them with the—to most pupils—absolutely detestable laws of physics, chemical formulas and botanical definitions. There is so much in these subjects of intense interest that I do not think it right to make too much of the principles which, though of great value to the professional physicist, chemist and botanist, have no real value to the average teacher or pupil. Not that I advocate following the lines of least resistance in education, but I want, in this paper, to enter protest against the mass of science contained in the average text-book intended for use in secondary and high schools. I believe them to be beyond the comprehension and capacity of the pupils who use them in the time given to these subjects in an over-crowded curriculum.

In conclusion, fellow teachers, let me appeal to you to use whatever in physics, chemistry or other sciences will attract the interest of the children and make them love nature, and to discard all that part of science which, though of value to the few especially engaged in technical or theoretical work, is distasteful to and beyond the ken of the majority of the pupils. Remember that only that is of vital interest to the child which comes into the sphere of his experience and is in reality part of his environment. Too often "we study nature from books and when we go where she is we cannot find her," but brighter days are dawning and much depends upon you, enthusiastic teachers, to solve this problem. The measure of your success will be the number of pupils you can inoculate with a love for nature, which will often lead to a real love for science, but there must be this sequence, nature study winning the attention of the children in the lower grades, homeopathic doses of science in increasing quantities until the nature study of the elementary schools blends into science in the last years of the high school. I want, in closing, to second the protest of Prof. J. V. Crone, "against that effort made in response to an awakened interest in nature in our public schools to lay the foundations of science there under the name and at the expense of nature study. True Nature Study must say to Science, 'Thy ways are not my ways, nor my thoughts thy thoughts.' Science is for the few; nature study for all. They have nothing in common. They should not conflict, but let them not be confused."

As he read, Prof. Singer made explanatory comments and strongly recommended to teachers Hodge's "Nature Study and Life," the *Nature-Study Review*, published by N. A. Bigelow, New York, and Bulletin 28, October, 1905, of the New York Education Department.

An interesting paper, written by Miss Margaret E. Wells, of Reading, was then read by Miss Mazie L. Eckhardt, of Altoona, upon

SCHOOL GARDENS.

Modern educators in our country are searching for the most effective means of developing the whole child, of aiding the evolution of the best that is in him. To this end we can learn an important lesson from Canada and some of the countries of Europe where the school gardens are in a measure solving the all-important problem.

Look, for instance, at Belgium, where all public elementary schools have gardens; at Austria Hungary, where there are eighteen hundred, and at France, where the state will accept no plan of a school building unless provision is made for a school garden. This important feature of education is also connected with the schools in Saxony, Switzerland, Russia and Sweden. England and Germany a little more recently established school gardens, and the United States has made a start, though the movement is still in its infancy.

The work here is now confined to certain centers, principally Ohio and Massachusetts, but it is to be hoped that from these centres the growth will be rapid and wide-spreading. In some of our cities where gardens exist in connection with the schools, they have grown out of social betterment work. School boards and individuals interested in education and social reform have noticed the effect of agricultural work not only on the people of the slums, but on those a little higher in the social scale, who have been deprived of the beautiful in their lives by the rigor of their struggle for daily bread. Appreciating to the fullest extent that "the hope of the nation lies in the boys and girls," these

educators have reasoned that it would be well to create in the rising generation the ability to see and love the beautiful, and to carry it where it does not naturally exist, or where it has been either unconsciously or wantonly destroyed.

A boy is filled with energy and enthusiasm that must find expression in some way, and where undirected this expression too often becomes vandalism, harmful to both individual and society. The failure to guide this energy in the right direction is at the root of many vital social problems. Take for instance the work of John H. Patterson, president of the National Cash Register Company, Dayton, Ohio, where one of the worst parts of the city, known as "Slidertown," was completely changed into one of the best sections, the remarkable transformation being due to the National Cash Register boy gardeners' work.

Here Mr. Patterson organized boys, notoriously vicious, into clubs, and gave them gardens to cultivate. At first there were forty and the work has yearly increased in size and beauty until now the gardens are the most beautiful in the country and the lives and interests of those boys have undergone a like transformation. And just such changes could be made in every city or town of our country, providing there be those back of the movement interested enough to provide space, money and time, and willing to live down certain discouragements which necessarily accompany new attempts. While the work is practically only begun in the United States, yet it has been sufficiently tested to prove that in schools where there are gardens the children are thirty per cent better developed socially, intellectually and physically. If there were no other sort of benefit the last of these three would be worth while; for none will dispute the fact that the child with the hoe will make a healthier man than the child whose only exercise consists in nursery games and in a few school-room gymnastics.

But this is not the only benefit to the child. It is pretty generally granted that school gardens afford the very best means for nature study. The garden becomes, as it were, the child's outdoor blackboard, upon which nature, with the help of the child, discloses to him her beautiful secrets. When he goes out to meet her in this way he can get so close to her that he may see through nature up to nature's God.

And he can be made to feel his own power to help nature put forth her best products. He will rapidly learn that he is master in his little workshop, that the tools, the soil and the seeds, the rake and the hoe are in *his* hands; that the enemies, the weeds and insects, are ever present and he in a measure can make or mar the work.

Then, too, by means of his garden his work in science, language, arithmetic and geography can be aided. But the teacher must correlate these so that the child will be unconscious of it. If the work should become so cut and dried that the child feels the pedagogical significance, much of the good will be lost, since the life be crushed out of it.

There can be no better means than garden work of teaching a child his duty to his neighbor, and the respect due to the property of others.

The real aim, however, of this work seems to be this—to create a love for beautiful plants and trees and to show the child how he can help to turn a small piece of barren ground, or his own forlorn back yard into not only a beauty spot, but also a place of productiveness. One of the first and best results of the work is that the child invariably carries his ideas home. He wants a garden of his own, and in many cases where he can't have a garden because of lack of space, he satisfies his desire by planting flowers or vegetables in window boxes.

Since this movement has been begun in some of our larger cities one thing is very noticeable to the traveler in the slum sections where such gardens exist. If he glances up at the tenement windows he can see many of these window gardens, which add much to the happiness of living for these crowded people. Can a more charming idea be conceived than that of having a garden associated with every school? If the space be too small to provide each child with his own garden, our schools would be wonderfully improved if the vacant space around each building were made to blossom. There are few schools where this at least would not be practicable. It is most important, of course, that there be sufficient space for a play-ground, but how much less desolate and bleak would it be if vines, shrubs and hardy plants could be banked against the building and fences, and along the walks and edges of the well-kept lawn?

Of the beautifully decorated school yard it can be truly said:

"The garden glows,
And 'gainst its walls the city's heart still beats.
And out from it each summer wind that blows
Carries sweetness to the tired streets."

If the space immediately surrounding school houses will not provide individual children's gardens, could not a neglected lot nearby—and, alas, there are only too

many of these—be used for this purpose?

The work of this kind in which I have been interested is the first work of the kind in our city and this is its first year. Since our experiences, though so new, are so encouraging, I shall tell how we began, hoping that those cities or towns which have not yet made a start may perhaps be induced to do so next year.

A working boys' club was organized in our city in 1898 by a man greatly interested in social improvement and civic reform. This year he rented a vacant lot, expecting to use it as gardens for the neighborhood as well as for the boys of his club. Slips were mailed to people in the vicinity of the lot offering plots to those wishing to cultivate them. The great majority made no response, probably they didn't understand the proposition. Consequently, after all the boys who wished gardens were supplied, those remaining, which had been intended for the people in the neighborhood were offered to the school children of the nearest building, having first gained the consent of the superintendent of schools. There was a very general response, and now about 50 children from the Schuylkill avenue buildings ranging from 8 to 14 years old, are working in the gardens. It was necessary to plough twice in order to supply the demand for plots. Now we have 82 plots each 10 by 30 feet, with three-foot paths between them.

All the work in the garden has been done out of school hours. We started by asking every person receiving a plot to meet at the garden one Saturday morning. The plots were numbered and his own little piece of ground was assigned to each child. Nearly all had brought tools and began work at once cleaning stones, raking, etc. Some of the children worked practically all day and planted all their vegetables. The enthusiasm was most inspiring. We felt that perhaps the interest would decrease, but with few exceptions it has not. There are children who spend a few hours in the garden every day.

All the seeds were given to them. Vegetables occupy a space ten by twenty feet, the remaining ten feet being taken up with flowers. The vegetables planted were beans, lettuce, radishes, carrots, peas and musk melons. The flowers were stocks, candytuft, marigolds, nasturtiums, China pinks, phlox and poppies, with borders of mignonette for the girls, and of sweet alyssium for the boys. We allowed the children to shape their flower beds as they wished, thus affording a means of expression for individuality. The parents of the children have taken a great interest in the work, and every evening come to the gardens, either to assist their little ones or to look at the other gardens. In this way a great deal of sociability has developed among the people whose children have gardens.

Fortunately we secured good seed, and in spite of the long dry period, everything is growing well, and children now are carrying home some of the produce. We have had some trouble with the weeds, which grow very fast because of the fertility of the soil. Since there are no regular times when we can have all the children in the garden together because the boys of the club work for their living, nearly all of them till six o'clock, we have difficulty in keeping the ground sufficiently free from weeds. This kind of garden is far harder to manage than a regular school garden when the work can be systematized. The experience that a child gains from such work cannot be overestimated. This spring I visited some of the gardens in Philadelphia, which, by the way, have increased from two last year to ten this year. I happened to visit one garden not yet in running order. A little colored boy was sitting on the fence, and I inquired of him when the garden would be opened. He said "To-morrow." I asked him whether he had had a plot last year and he replied: "Yes, I took a prize for my watermelons."

I discovered that this garden was not connected with a school, but was maintained by a philanthropic woman. Upon asking the boy whether he was coming for a garden to-morrow, and how the other children knew that they were to come to-morrow, his little black face brightened, and he said: "Oh, once you have a garden you never forget to come again." Doesn't this prove that what the child gains makes a lasting impression?

And there can be no better spring tonic for worn-out teachers than to get out with their children to help them dig and hoe and live for a time in God's sunshine and fresh air.

Supt. Foos, in referring to the last paper read, spoke of the excellent work that has been done in Reading, emphasizing the statements made by Miss Wells.

In reply to questions as to how long time should be given to nature study and how much should be attempted, Prof. Singer replied: As long as the interest is sustained. We must not pour in too much. If the teacher can have pupils tell him things instead of his telling them all the while, so much the better.

The officers elected to serve for the ensuing year are Prof. George Parke Singer, Lock Haven, president, and Miss Mazie L. Eckhardt, Altoona, secretary.

MANUAL TRAINING.

THE meeting of the Manual Training Department was interesting from the fact that the superintendents and principals in attendance took part in the discussion. Prof. C. B. Connelly, of the Carnegie Technical Schools of Pittsburg, to whom we are indebted for the following report of proceedings, says: It seems that our work is not clearly understood by the grade teacher and we are going to make an effort to have a mid-year meeting either in conjunction with the High School Department or alone. This was talked over and it seems to be the best method to bring before the educational people of the State what the manual training people are trying to accomplish. Mr. Edward Fitzgerald of the North Manual Training School, Pittsburg, was elected chairman for the ensuing year.

The first paper of the session, which convened at 8:30 o'clock Wednesday morning, was by Prof. A. E. Dodd, supervisor of manual training, State Normal School, North Adams, Massachusetts, upon

MANUAL TRAINING AND ITS IMPORTANT RELATION TO THE HIGH SCHOOL BOY.

In this present day of industrial emphasis in education, there are two problems which are as yet much in the formative stage, namely, primary industrial work and secondary industrial work.

A glance at the history of the primary movement illustrates the gradual adjustment in that case and will perhaps make clearer the present trend in the secondary movement. To begin with, this whole attempt at industrial work in the schools was started backwards—was carried down from the higher technical schools through the high school and finally into the grades, instead of beginning in the kindergarten where the child, instead of the subject, is the central thought.

Only when the movement finally reached the root of things, the kindergarten, and then in recognition of the child's impulse to do, began to grow up through the grades, did the work begin to show a close relation to the child and to school work generally.

With each year we have heard with increasing strength from our manufacturers and commercial people that they must have more skilled labor. With attention directed to this demand, there has also been a turning toward the schools to see, if possible, in what way the schools might make some fitting application, and in many places, there has been substantially shown a feeling that the schools should not be merely a place to learn about things, but a place to really do things.

Coming with this recognition that school work must bear the closest possible relation to the life after school, there has also come the recognition that human beings are diversified and cannot all live the same life. That which may fit for one, may not fit any one of ten others. And the recognition that we are diversified is responsible for the extension to the schools of that typically American demand, "For every one his chance." That is, we must not only train to use the body, but give opportunity for each to find what he may be particularly fitted for.

Now let us look for a moment into the historical growth of this phase of the movement. For many years the higher technical colleges have had what we may class as practical work in the use of tools and materials and naturally those who felt the need of industrial lines in the lower schools, turned in their somewhat misty state of mind to the technical schools seeking to take what they were using and by certain changes, adapt this work first to the high school. This went on with a certain degree of success and in places attempts were made to extend this work to grades below the high school.

About this same time, the advent of the Sloyd system brought light on the fact that the making of something useful and within the appreciation of the child, had much more value than the old Russian system of tool exercises alone.

Finally, when the kindergarten was turned to for inspiration, and the child's *natural* growth was recognized and his adjustment to society, then the interpretation of life round about was used as a basis upon which to extend manual work; then only did the results prove that the right track had been found. And so upon this basis of the interpretation of life, manual work is now being carried on in progressive sections with perhaps here and there a difference as to details, but the movement as a whole is the same.

But certain conditions which we recognize as best for the primary school age do not fit the life and growth in the secondary schools. In the primary schools, children are in one room—all do the same work and the work is for all, but secondary education is bolder than primary. Individuality is

becoming more marked and the pupil is beginning to strike out for himself. He selects the courses with one idea as to their life value, and in the present day, work which is not going to be of close relation to life after school is seriously questioned. Do not misunderstand me, and think that I criticise a purely literary course. If a pupil intends a literary career, surely the literary course is the course which bears the closest relation to such a person's future life.

The high school is the average man's college, and if the high school does not bear a close relation to the life after school, the result will be a substitution of something else for that high school. In fact, if we look at the history again, we will find that our present day high school is just such a substitute for an older form of instruction which has fallen from its past usefulness.

In the old days, the colleges were professional schools—distinctly utilitarian; men did not go to college for the general culture which we do to-day, but to become clergymen, doctors, lawyers or teachers, and consequently we had the old classical preparatory schools which fitted for entrance to these colleges.

But all could not, or perhaps better, would not, be lawyers, clergymen and teachers, and so there came the classical academy which was to give a broad general course of culture, and people who did not wish to enter professions went to the classical academy. Thus, the academy killed off the old classical preparatory school. But developments soon found the academy lessening in value. The academy was only for those with money and it, in turn, grew more classical, serving only those who did not have to too great an extent the bread and butter side of life before them.

As a result of this came the public high school killing off the old classical academy and now we find the public high school undergoing a very critical period, because people are looking to the public high school to give the training which will be of the most value to a person in that larger life out of school. This critical period in the high school is the result of this provoking cry, "For every one his chance," and as we cannot make every one a mechanic, or every one a doctor or literary man or every one a salesman, we should be very careful about building expensively equipped high schools of one type which *cannot* be made over if they should prove a mistake. At the present we are developing in this country three classes of high school—literary, commercial and technical.

Now the question is, what kind of a high school is going to meet the needs of the country at large. Special local conditions will largely take care of themselves by a greater emphasis on that side of the courses which bear closest relation to the community, but we must not forget that even in a manufacturing city all children are not fitted for becoming mechanics, or weavers, etc. To favor one phase to the exclusion of the other is to go directly against that demand which we have recognized as right.

When deciding courses in the high school we weigh the different subjects according to their values. For some time we have been emphasizing Latin as of great cultural value and manual training is said to have practical value. Now Latin is often clung to because of tradition. Five hundred years ago men learned Latin because all the books and means to learning were in Latin—decidedly utilitarian and practical, was it not? Later men read Latin books because of their content and today we often hear that Latin is fine discipline for the mind. I am inclined to feel quite strongly that Latin in many places is emphasized more from tradition's sake than from any real relation to the high school pupil, or a child in his future life. However, do not misunderstand me, for I do not say that Latin has *no* value, because, to the students of literature or medicine, it will be a very practical relation. Neither can we draw a line between the practical value and cultural value of a subject. To me it seems impossible to make this distinction, for Latin may have, as we have just seen, a very practical value, and if manual training helps a boy to find himself in some trade for instance, trade learning gives a man more money, and the things money can buy, and therefore increased opportunities for culture. So it would seem that when a study does not have a close relation to the life after school, that study is of little good—taking the whole of life into account. No one, then, with a purely academic training is going to be really fitted for the life which most of us are to have, and if a boy takes a study not directly connected with life, he must follow it up with much work and much enthusiasm in order to get anything out of it.

And so the growth of the movement which I have very briefly tried to show will give us high schools of stronger literary and stronger other courses. We must have first the broadest academic training—and I mean broad in the same relation I have have been speaking of. There will be no room for Greek, but the ideal side must be held up through English, etc. We would not lose sight of the ideal, but instead of

making school boy dreamers, let us have common sense Ben Franklins.

In connection with the academic courses there must be a broad course in manual training. Boys should take manual training who do not intend to take up technical work, in order that they may have the appreciation for work, which can only come by the experience of actual doing; many a loafer has been made poring over a book of ethics, while many a boy has found truth and accuracy by earnestly doing something.

For the second division the school should have a trade side—not taught there—for those who can never go very far, but who wish to become foremen, etc., men who must have a trade but who need a broader outlook than a tradesman. The evening school of trades, which is a part of the Springfield, Massachusetts, High School, is a most successful example of the side offering opportunities for a broad appreciation of a trade and giving much of cultural value at the same time.

The third division is the commercial department. This would be an extension and modification of present commercial courses. As broad an experience in manual training as may be given will do much for the man who will in the future be a salesman, buyer, or in cost system lines, because he will actually know something of hand work and have a practical basis for his judgment.

A man who will perhaps be a salesman in a furniture store or some other kindred line is sure to be a more intelligent and better salesman if he has some appreciation of the work which has entered into the production of articles in his business.

Time allows only the brief suggestion of these three points if they are to be discussed, and the writer feels that discussion is generally of more value than the papers themselves.

In closing let me state once more the thought that education must bear the closest possible relation to the life after school, and the high school, which best prepares for college alone, does not render the service it should to a community of diversified people.

In the discussion which followed the reading of the paper, Prof. C. E. Karlson, supervisor of manual training in the public schools of Altoona, said:

With the problems of industrial work as a study in our public schools largely remaining unsolved; with the constantly growing demand for more skilled labor before us and the increasing tendency to have the boy prepared for immediate remunerative work, we must indeed face the issue squarely. What, then, is the most pressing need? What can we do as teachers of industrial work to help the boy? The paper presented shows that school life, studies, methods of work, etc., must bear the closest possible relation to life after school. This is indeed true, but in order that the greatest good will come from this, a right beginning must be made and the foundation work of the kindergarten must be wisely continued in the primary grades and built upon in each succeeding grade to the finish. In order to do this there should be no break anywhere. The scheme must be continuous and the plan systematic. But this is not enough. The teachers must be wisely trained and well directed. It is not at all necessary to have special teachers; for these, in very many cases, are worse than useless. The supervisor should be chosen for his fitness alone and should for the good of the work be made responsible for all work from the very beginning to the end. The teachers, principals, supervisors and directors should all be broad-minded enough to be thoroughly in sympathy with all that is good in the various schemes and lend a helping hand. Co-operation, co-ordination, correlation along all lines will undoubtedly bring the best results and not until this is brought about will the problems be solved. In a high school such as described, while much good may be accomplished under almost any conditions, much more would be accomplished, much more value would come to the boy, much better would be the results, did all studies rest on a solid foundation, correlate and co-operate. The burden of the work would naturally fall upon the manual training teacher, and he must indeed be a teacher, an artisan and an artist, trained to know the boy as well as the various subjects, not superficially but thoroughly.

Professor Karlson also gave a brief description of the magnificent manual training equipment which is being installed in the new high school of Altoona. It will be one of the best equipped schools in the country when completed.

Continuing the discussion, Prof. Joseph M. Speer, supervisor of industrial schools of Allegheny City, said:

As to the starting of manual training in the wrong place, we can easily see that to take up anything new in the small schools would be quite a difficult task, the ability of the higher educational institutions to do the pioneer work in any new enterprise is known to you all. The development of new facilities has always been from above downward, and from the centers of population outward to the more remote districts.

Most of the educational problems are to be worked out by the higher institutions on account of the means at hand, the scholarship of those in charge, the spirit of investigation, the willingness to risk and spend money and effort for the chance of strengthening the forces that make for the increase of intelligence and the welfare of the race.

Manual training has won its way into many schools where the only claim has been general education. It has been said that manual training means the cultivation of the hand so that it may be able to express the thoughts of the mind, to serve as an adjustment between mind and matter, to be the complement of the mind in man's struggle for control of his environment.

With development of skill, hand and eye by the work, and also the development of thought growth, it is deserving of a place in the curriculum. It is not claimed that manual training will infallibly produce thinkers, but it is claimed that the industrial work is just as important and essential to the boy or girl in the high school, as any of the other studies in the course, and the time alloted to the industrial work should not by any means be encroached upon.

Early in the history of manual training in Sweden, two points were specially considered, first, the desire to keep the home intact, and, second, the recognition of its educational value. The kitchen was at that time a center around which the interests of the people gathered; this no doubt accounts for the plain articles of common use in the Sloyd models. But with the growth of the factory system, and the removal of the field of labor from the kitchen to the shop, the sitting room then became the home center. The home is no longer a working place, but a resting place. So the articles suitable for decorating and furnishing the sitting room naturally interested the children more, and of course exercises more appropriate were taken up by the schools. With this shifting from the home to the shop, came not only the change of observation from the kitchen to the sitting room, but to the study and observation of the industries of the world.

The high school boy should take two elements into consideration in choosing a course, first, the subjects which compose the course of study and their correlation; second, the fitness and influences of these studies to his after-life. The course in manual training must consider not only the training of the hand and eye, but it must touch the life of the boy in his work, in his play, in his home and school life.

It does not follow that this means the pleasure of the boy in selecting the lessons in the shop or drawing room that should be given to them, but we should make the course attractive with the elementary industrial processes which have a place in the present industrial life, which have had a place in the past, and no doubt will have a place in the future. Such a course would be considered practical, educationally, on account of its correlation with the other studies. It will be practical from the standpoint of the community because it will teach the high school boy the elements of the occupations of the members of the community.

Another great factor that enters into the life of the high school boy in the industrial work, is the teacher. The teacher is to the school what the soul is to the body. What the mind is to the man, that the teacher is to the school. A good teacher will find or devise good methods, and employ them. His pupils learn to feel that it is good to be where he is, and his presence commands attention and solicits interest.

The teacher's personality, far more than his learning, determines his value as an educator. He who awakens and confirms the faith of his pupils in the priceless work of intellectual and moral power in the character-building pupil, is an educator and a power. Under such a teacher the boy is taught the theory of every tool, how to use and care for it. He is taught to compare fact with fact, condition with condition and by comparisons develops judgment. When in after years he finds himself surrounded with conditions that demand swift comparison and prompt decision, his training does not fail him. He is equal to the emergency and as a rule he will find that he sees the end from the beginning, and that his swiftest judgment has been satisfactory.

The high school boy with a teacher such as the one just described and a manual training course involving the use of tools and methods of construction as practiced by skilled artisans, would cultivate self-control, manliness, and profound respect for honest toil.

Mr. W. M. Jones, Rockdale Mills, Pa., closed the discussion as follows: While the paper does not overestimate the practical side of manual training, it seems to fail, probably for want of space, to place stress enough upon the discipline of the mind and the culture side of the work. I think there is no other subject upon the school curriculum that contributes more to the training of the eye, calls more for the exercise of judgment, and causes closer observation

as to the form and beauty of objects both outside and in the school-room than the training received in the manual workshop. Grade teachers take little interest in manual training—a matter referred to by our chairman—because as a rule they know but little about the work. It is not natural for one to become very enthusiastic, much less to stimulate others along a line of work that he or she knows little or nothing about. We do not employ a teacher to teach language who has not had more or less training in mathematics, history and the sciences. So our grade teachers will not become very strong advocates as to the importance of manual training until they have had some training along this line themselves. The shortest way to this result would be to make a course in manual training one of the qualifications of the grade teacher in schools that have established a manual training department.

Prof. Paul Kreuzpointer, of Altoona, spoke as follows: In considering the important relation of manual training to the high school boy we have to consider the influence such training will eventually exert upon the boy to render to himself and to society, as a man and citizen, that social service, as a return to society for the help received by it, which we call good citizenship and which is characterized by public spirit, high sense of duty, strength of character, self-control, self-reliance, industry and economy, regard for the rights of others and efficiency in knowledge and skill in one's chosen vocation. Can the high school boy be benefited and prepared for the duties of life by that form of industrial education which we call manual training?

The success of such training, either when given in the manual training high school or the manual training department of the classical high school, depends upon the extent the curriculum and method of teaching are correlated to the needs of society.

Society as a whole cannot fulfill its function towards the individual members of society, to protect them, to promote the peace and welfare of the family, unless in this industrial age there is a realization that special professional, or trade education, if you please, is not sufficient for the state or nation without such general education which gives the boy and man the power to comprehend the scope and relation of the human activities of the day, the complexities of modern civilization, the influences upon social conditions and upon the mental and ethical and esthetic state of the mass of industrial workers of law, institutions, economic or wasteful methods of manufacturing, transportation, distribution of the proceeds of farm, factory and workshop.

But in turn general, so-called cultural or purely literary education is no longer sufficient to give that power and strength to modern society to fulfil its function, to make the mass of the people contented respecting law and institutions, property rights, and to be willing to contribute their share to the promotion of the welfare of the family and the community, with specific technical and scientific knowledge which supplements, broadens and enhances the cultural value of literary education.

If ethics is the science of human duty and of modern society, if the preservation of the strength and unity of the nation requires the economic and judicious use of the material resources of our country, its minerals, forests, soil, water power, transportation facilities or anything that makes the functions of society more valuable, more efficient to the individual and the family, and if the study and knowledge and skill of science and the application of the laws of nature contribute thus to this economic and judicious use of the means to preserve modern culture and civilization, and if manual training or industrial education, in its general form and adaptation to modern needs, as we ought to find it in the modern high school, is such a distributor and conservator of this necessary scientific and technical knowledge, then we can readily perceive how general industrial education or manual training, so-called, has acquired, in modern society, the importance of a moral factor for the preservation of the contentment and peace and welfare of society. The economic use and judicious application of our material resources having assumed the importance of a civic duty towards the preservation of the welfare of society and the strength of the nation, and the fulfillment of civic duty being an ethical function, it is not too much to say that manual training, in its broader scope, has assumed the important relation to the high school boy of an ethical function, always provided the curriculum is sufficiently broad and comprehensive and the necessary co-operative spirit is displayed by the principal and faculty where general industrial education forms a department of a high school. If such co-operation is not forthcoming, then both the literary and the manual training departments are the losers.

Unfortunately there is a strong undercurrent of antagonism prevailing among many high school faculties against manual training and industrial education, considering manual training unworthy to be

classed as a cultural factor in our educational system in comparison with the cultural value of literary studies.

Two causes have contributed to the creation of this antagonism: First, the rapidity with which the newer studies, including manual training, have been tacked on to our educational system without any provision having been made to absorb them and treat them as part of the organic whole, which left the new studies in the position of intruders or step-children, as subjects of inferior cultural value in comparison with literary studies, and, second, the emphasis given to manual dexterity, to the technique of the mechanical execution of the manual work done, in the manual training high school and manual training department of the high school, without much, if any, reference to the relation of that work to the great industrial and commercial activities outside the school-room, their economic relation to the school and the reaction of the school upon these activities. In visiting or looking over the curriculum of manual training high schools or manual instruction in the high school, little, if any, reference is found to be made to the scientific part of the work and the materials used, the resources of our country and our ability to sustain our tremendous industrial activity at the present rate. That our manual training teachers have done and are doing good work, there is no question, but they do not seem to be inclined to assert their importance as ethical factors in the social structure in the way they can and ought do it.

A manual training curriculum which is to emphasize its important relation to the high school boy, either in the manual training department of a literary high school or manual training high school, must meet the demands of modern civilization and civic duty and co-operative necessities of society, of the pressing necessities of increasing density of population and decreasing quantity or quality, or both, of our national resources with its serious economic consequences. Such a curriculum should include, in addition to the usual literary branches, municipal housekeeping, knowledge of the administrative, judicial and legislative functions of the state and nation, rights and duties of citizens, knowledge of the sources and resources of the country as means of production, transportation, distribution and consumption; our commercial abilities and relation to our competitors and the resources of other industrial nations with whom we are competing or are likely to compete in the markets of the world. To make manual training effective to the high school boy that training must be such that he not only sees the work before him, but sees what is beyond it, sees the import, the value, the relation of his work to his own self and the life about him, it must be more than a relief from the drudgery of the school-room, it can and must take the sting out of the charge of being a servitor of materialism by showing and proving that manual skill, supplemented by technical and scientific knowledge, is conducive to civic virtue and municipal well-being, since every household and municipal question nowadays is a technical and engineering question, and how to keep home and city healthy and comfortable and esthetically attractive is a question of culture nowadays and of this, as a corollary to manual training, the high school boy should become aware of in a practical way by object-lessons. Last, but not least of interest to the high school boy, should be a knowledge of the important relation manual training, or industrial education of the United States bears to the industrial education of other industrial nations, that we are as yet far behind in that respect and that, for our own good, we ought to make strenuous efforts to advance our industrial education.

KINDERGARTEN DEPARTMENT.

THE annual meeting of the Kindergarten Department of the State Educational Association was held in the high school building, Altoona, Wednesday, July 4, at 8:30 o'clock, Mrs. William McCracken, chairman of the department, presiding.

In opening the meeting, Mrs. McCracken paid a glowing tribute to the memory of Miss Georgia Allison, superintendent of kindergartens in Pittsburg, and late chairman of this department, in whose death the kindergarten work of the state has suffered a serious loss. She then read the following paper on

FOUNDATIONS IN EDUCATION.

The importance of foundation work in these days of great achievement is forced upon us more and more each day. Not long ago I was much impressed by the laying of a foundation for a large building in our city. The excavation finished, a solid bed of concrete was laid, and, with firm faith in its stability, on it were places the foundation walls and entire structural work of the building. A much more serious task have you who build, not with stone and brick and steel, but with daily word, an ideal, and deed, in childhood, foundation

for that most enduring structure—the character of man and woman.

I point to the kindergarten as the bed-rock of concrete which should be laid under your wall of science and art and manual training, of intellectual and physical development and moral culture, and we who believe in and follow the philosophy of the gentle apostle to childhood look upon self-activity as its chief corner-stone.

It is to the mother and father that we should naturally appeal to lay the bed-rock foundation for the education of the little child. But among parents there is still a painful lack of appreciation of the necessity of any care beyond the physical attention necessary. So many habits which should have attention in the very earliest months of the child's life are ignored and allowed to crystallize. Even the babe in the cradle, a little bundle of activity, stretches and reaches it knows not for what. Thus early the watchful mother draws the attention of the child from himself and directs the activity in proper channels. Prevention of bad habits—not deliverance from them—is the crying need of the child, and the development of good habits is the surest preventive of evil ones.

The kindergarten, in its far-reaching influence, is touching the mothers and the homes. I heard recently of a kindergartner who, meeting a young mother, recommended a certain mothers' class at a kindergarten college to her. "But my time is now fully taken up with my baby," she replied. Several years later, meeting the same kindergartner, she said, "What was that you told me about a mothers' class? I must have something of the kind. I have three children now and can't possibly get along without it." I earnestly look for the time when kindergarten training may be a natural part of the education of every young woman.

But whether or not this work begins with the babe, the time comes when a part of the work can be done better in connection with other children than in any other way, and he is given into the care of one whose aim, if she be a wise kindergartner, is to guard against aimless activity, and so direct the activity of the child that there may be "aroused in the child's nature the essential apperceptive centers of the broadest and highest human development, so that the education and experiences of later life may find centers of interest in his mind." This, according to Dr. Hughes, is the most complete reason, given in a single sentence, for the existence of the kindergarten.

To begin proper physical development, then, are the games and plays of the kindergarten chosen, calling into related activity all the powers of the body. These are chosen, not alone with regard to their physical value, though that is of grave importance. And it is difficult for me to distinctly draw the line between the physical and moral effects of the games. "What flight and air are to the bird, play is to the child; it is both his distinctive activity and the element in which he moves." "To study him in play, therefore, is to study him when he is most himself."

"From insight into the deep meaning that lies hid in childish play, there is but a single step to its use as a factor in education. This step Froebel was the first to take, and by taking it he placed himself in the van of educational reformers."

The games are chosen for the development of self-control, courage, endurance, persistence even after defeat, glory in the triumph of strength and skill, though it be the strength and skill of another, individual responsibility and at the same time the value of co-operation.

The games, in addition to physical and moral effect, do not lack in intellectual influence, for "What the child imitates," says Froebel, "he is trying to understand." Worthy aspects of animal life are carefully chosen for imitation, all emphasizing care and protection of animal life. I may cite but a few of these games to illustrate these truths. Those of you who have seen the driver bring his prancing horses to be shod, and the strength, industry and dignity with which the little blacksmith does his work—all to the inspiring strains of Handel's "Anvil Chorus," could not but believe that in every little one honest labor is dignified.

Or, who could see the Italian soldier boy march, proudly bearing aloft our country's flag, and hear the martial strain,

"Soldier Boy, soldier boy, where are you going,
Bearing so proudly the Red, White and Blue?"

And hear his little voice ring back the answer,

"I'm going where country and duty are calling,
If you'll be a soldier boy, you may go too."

without being convinced that in the heart of that little foreigner is sown the seed of loyalty and patriotism that one day will spring up to answer his country's call as truly as he has done the call in play. But the games of the kindergarten occupy but a small part of the morning hours.

The old idea of nature study was destructive in principle. The revolution of late years in nature study in the schools is

due largely to the kindergarten idea, which is constructive in every particular. There must be life and growth that the thought of love and nurture may be rightly emphasized. In observation of animal life, care and kindness are always the dominant thoughts. The stories and songs of sun, moon and stars open the eyes to the wonders of the heavens, and pave the way for the later study of astronomy.

Dr Harris has said geometry and arithmetic seem to unfold themselves naturally in the mind of the child who has done the work of a good kindergarten with the gifts and the stories and excursions, arouse an interest in his surroundings and the great world beyond his little world, in the people and the conduct of this great world, that the eager mind only awaits the ability to read to satisfy its craving for knowledge of history and geography. The well-chosen story of the kindergarten is the best possible means of instilling the love of good literature. The child who for two or three years has been occupied in kindergarten with sewing, weaving, laying sticks, counting, grouping, and all other pleasant occupation work in kindergarten, conscious of his own power to master external objects, finds his attempts at writing and drawing pleasure instead of drudgery.

The importance of being prepared for the material and practical side of life is so thrust upon us in this busy age that I must make plain the truth that kindergarten training is the true foundation of all technical training. I was pleasantly surprised on entering one of the finest and best-equipped manual training and domestic science schools in the state, to see at the entrance the bust of Frederick Froebel. This, in a town where the kindergarten has not yet been introduced, was a tacit acknowledgment that the philosophy of that mild and gentle spirit is the true basis of and the best possible preparation for all manual labor.

I was much impressed recently when a manager in a large retail establishment in our city was approached for aid for the kindergarten. He said, "I respond most willingly. If you had as much to do with young people as I do here, and knew how few had learned to do anything well, you would realize more than ever the importance of laying good foundations." Some of you may have read the experiences of a New York working girl as told by herself in "The Long Day." Throughout her varied experience in mill and factory she was made painfully aware of the fact that the large percentage of girls employed in these works were unskilled, untrained in the use of their hands, the only exception being a young girl who, in spite of being handicapped by a painful deformity, accomplished more and better work—all due to the only training she had ever had—the hand work of the kindergarten. This is not surprising when we realize what a very small percentage of the pupils in our schools continue beyond the third or fourth grade.

I have said that the practical in life is thrust upon us at every hand, and that with the exception of three or four years after the average child is of school age he is a worker in the world. I have tried to show kindergarten training the only true foundation for manual labor. This fact justifies, it seems to me, the strongest appeal for emphasis on the esthetic side of the child's education.

The influence of music on character, I feel, cannot be too strongly urged. Miss Snider will show this better than I can possibly do. Several notable instances have come under my observation. I have seen a troop of boisterous little people soften to the gentlest spirits under the influence of the tender "coo, coo" of the pigeon song. Courtesy, consideration and kindness glow in every face in singing the family songs by children who have never seen in their homes manifestations of these graces. "Our mothers are kinder and we are kinder," said one boy who was asked why he had loved kindergarten.

The influence of harmony in color and combinations and arrangements can scarcely be overestimated. I am quite convinced that the influence of harmony in sound, in color, in arrangements, will produce harmony of spirit. The eye of the soul will be opened, and the child will look on the world around him with new appreciation.

"For, don't you mark? we're made so that we love
First, when we see them painted, things we have passed
Perhaps a hundred times nor cared to see;
And so they are better, painted—better to us,
Which is the same thing. Art was given for that;
God uses us to help each other so, lending our minds out." —*Browning.*

Give, then, in these brief years esthetic training whose ideas will remain dominant in the child's character through years, many of which are filled with drudgery. In your own experience, isn't it the poem whose words you committed by repeated readings, with which, possibly, you might never have come in contact had it not been in that old reader, that fires your soul or brings the tears or the tender tone to-day? Profit,

then, by your own experience, and go back of the reading age with these children of your care and plant the esthetic seeds. I do not fear so much for the scientific. Work into their lives this "Gospel of Art":

"Work thou for pleasure. Paint or sing or carve
The thing thou lovest, tho' the body starve.
Who works for glory misses oft the goal,
Who works for money coins his very soul.
Work for the work's sake, then, and it may be
That these things also may be added unto thee."

The kindergarten does no higher work, it seems to me, than the attitude toward law which it develops. Obedience should mean so much more than subordination. The old idea of discipline was negative, not positive—its maxim *don't*, not *do*. It meant activity or receptivity under compulsion, not self-activity. The old idea of obedience to our teachers and parents because they were bigger and older and stronger was the only idea many a child of the past had, and "because I say so" the only reason given to many.

"What is new in Froebel's method," says Dr. Harris, "is the induction of the substance of prescription into the form of freedom. What he accomplishes is to enable the child to walk freely in directed paths." Is not this spirit the happy solution of the problem which confronts us in the western part of our state?

There are, in boroughs and towns surrounding our cities, vast numbers of foreigners whose children enter the grades at six with no preparation—not even a command of the English language. The kindergarten deals with this class, I believe, as no other agency can. On this point I quote a principal who has a kindergarten in his school: "There is a large number of children of foreign parentage in this district, principally those speaking the Slavish dialects. I have been particularly anxious that as many of these as possible be brought into the kindergarten, for I think no other agency will so quickly and effectually Americanize foreign children as the kindergarten. The results upon those we have brought in have fully met our expectations."

To walk freely and happily under the laws of our State! The perfect law of liberty is the goal for which we strive in discipline. The child readily assumes his proper place in the kindergarten life, understanding his own rights and respecting the rights and property of others, obeying the laws of game and work period.

It was Victor Hugo, I think, who said that every school door opened meant an alms-house closed. To begin at this early and most impressionable period of the child's life is to lay the foundation of moral character in such a way as it can never be done later. Many children in our city schools give evidence of much neglect, and I need not say to you that such children do not all come from homes of poverty and ignorance. Many children are well fed and well clothed, and yet show absolute neglect mentally and morally. I have in mind an interesting little neighbor of mine, who, while cared for physically, shows an absolute lack of any nurture. I have seen him in kindergarten, sitting on the edge of his chair, drinking in eagerly the story which opened up a new world to him.

The foundation of true religious principles is laid in the reverent spirit of the songs and stories of the morning circle. The influence, too, of good pictures shown at this time is one we would do well to consider. The influence of this good work is not alone on the individual child, but on his parents and home and on the community.

In our cities last year there were about 8,000 visits made by the teachers to the homes. Think of the mighty wave of influence for good coming from this personal influence of consecrated women. The principal of a school having two kindergartens says: "The influence of the work that is being done in these kindergartens is felt not only in the school, but throughout the entire district."

The Mothers' Committee of our Association held three meetings at the Kindergarten College Building, entertaining at each about 125 mothers from the various kindergartens in the different parts of the city. At first a practical talk was given by a practicing physician on "Nutritious Foods for Children." At the second an interesting paper on "Truthfulness," and at the third Miss Susan E. Blow spoke on "Religious Training of the Child." At each meeting a child's story was told; music and light refreshments completing the programs of most enjoyable and profitable afternoons.

The growth of the kindergarten movement in our state is gratifying—a normal, healthy growth—though not all that could be desired. The testimonials to which I ask you to listen are given out of experience, consequently command our deepest respect.

"Unlike the aimless desultory nursery sports, the games, etc., of the kindergarten leave a deep impression in the child, and, entering the primary school, he is easily distinguishable from his non-kindergarten

associates. His happy disposition, his love of the true and the beautiful, his unbounded confidence in himself and his teacher, his knowledge of natural phenomena and sympathy for the natural objects around him, and his highly developed perception—all combine to give him an immeasurable advantage over his less favored companions."

"No observant teacher will fail to commend the kindergarten. No board of education errs when liberally supporting it. I would have all children enter the public school through the kindergarten."

"Based upon the opinions of my primary teachers, I believe that kindergarten children observe more closely, grasp thoughts more quickly, concentrate their attention more readily, and show a greater degree of independence."

"The teachers into whose hands these children fall after leaving the kindergarten find a marked contrast between them and the children who have not had such training. The eye, the hand, the power of observation and attention have been so trained as to enable them to adapt themselves to their new conditions and work much more readily than they could otherwise do. The kindergarten is worth all it costs, and should be heartily sustained."

"It is difficult to characterize and accurately define the effect of kindergarten training on the children of our school. It has seemed to me to be analogous in some respects to the effect of traveling on an adult. The mental horizon is enlarged; all the faculties are awakened and quickened into activity; the sympathies are broadened and deepened, and into the lives of many are brought the first rays of a pleasant, wholesome existence. There can be no doubt of the benefits accruing through the operation of these influences upon the child while in the plastic period of its development, and although they may not be measured as the acquisition of so much number work or reading, they are, nevertheless, just as real and permanent and desirable. I might go on and trace the effects of kindergarten training upon the children as they pass from grade to grade through the school course, noting how it may form the basis for better work in all studies, how it may awaken a greater interest in manual training and domestic science, but it will be sufficient to say that the impressions implanted, that the forces put into operation for forming correct habits of mind and character, will work out for the good of the child not only during the course of its education but throughout life."

"We find the children who have had training in your department much better prepared to take up the regular school work. Their observation has been quickened, attention is more easily secured, they are more ready, and are better able to express themselves. They have been most pleasantly introduced to school life, and have learned something of school ways. My teachers all speak in high praise of these and many other advantages."

"It helps to give our school children the best possible start in their educational career."

If, then, we can, in three years' kindergarten training, at the most impressionable period, lay the foundation of truthfulness, honesty, patriotism, courage, patience, gentleness, neatness, obedience, honor, and many other moral quaities; of physical activity, beauty, grace, strength and endurance; of intellectual vigor, concentration and thoroughness, and those who come after direct in rearing the walls of science, and art, and literature, and ever-deepening integrity, have we not laid the best possible foundation for life? For "He who helps a child helps humanity with a distinctness, with an immediateness, which no other help given in any other stage of human life can possibly give again."

When the temple stand finished, fair and beautiful in His likeness, shall not the topstone be brought on with shoutings, crying "Grace, grace unto it!"

Following Mrs. McCracken's paper, Miss Alice Snider, teacher of music and psychology in the Kindergarten College of Pittsburg, read a paper on

THE PLACE OF MUSIC IN EDUCATION.

If there is one watchword in education to-day it is the magic word, Development. This great idea, owing its genesis to Schleiermacher, emphasized by Darwin's discoveries, and reinforced by a long line of thinkers, educators and scientists of the last century, has become to-day more or less consciously the great impelling idea in education.

Several summers ago, in a very beautiful little address on shipboard, on a calm Sabbath morning, Dr. Charles Hall, summing up his points, gave the essence of his talk in this sentence: "Religion, therefore, is the attitude of the whole man to the whole universe." Although he obviously spoke only of religion, it seems to me that true education might equally be said to have as its ideal the development of the whole man in his relationship to the whole world.

A full, rounded, whole development, then, is our goal. Not erudition, as was thought some centuries ago, when a learned

man was looked upon with awe and envy, and education was mostly a learning of the classic tongues; not Rousseauism, which insisted on a one-sided and isolated culture of the individual; not the exclusive cultivation of the observing faculty, as Pestalozzi recommended; not even a memory culture, such as we find exemplified in the Boston Latin School in the last century, where pupils found the Alpha and Omega of education in memorizing many pages of Latin verbatim. But education, we have come to see, means a full, complete development of every function of life, every faculty of the mind, and every power of the soul—in short, the development of this human individual physically, mentally, artistically, morally and spiritually into a rounded completeness.

May I, a kindergartner, be absolved from the imputation of vanity if I here declare that the great educational genius who first promulgated this idea in its completion was Friedrich Froebel? No student of his somewhat mystical pages can fail to be impressed by his constant re-iteration of this idea of unity and wholeness of development and his condemnation of one-sided culture.

Now in the view of all-rounded, many-sided education, has music a place? I think it has, because of its tremendous influence on every phase of child nature—his emotional, primarily, but of equal importance his physical, his intellectual, his moral and his spiritual nature. From the dawn of history we find all races powerfully impelled by music; from the south, in the heart of sultry Africa, where the tom-toms beat like heart-throbs, and the flutes and hautboys rouse the dusky nomads to voluptuous langour or religious frenzy, to the Norse and Celtic races of the North, with their whining bagpipes, whose pibroch stirs the spirit to martial ardor; from remote antiquity of the Orient, when David soothed Saul's madness with his lyre, to the classic Occidental races, with their beautiful legends of Orpheus and Apollo, and their measured melodies.

Music is the mistress at whose command the emotions come forth—glad and joyous or sorrowful, filled with martial ardor and the thrill of patriotism, or soothed to the lassitude of lotus eaters; aroused to the religious frenzy of the East, as are the dervishes, or raised to Heaven itself by the chorals in the vast cathedrals of the Middle Ages.

Is it wise, is it even sane or practical to leave such a powerful instrument in the molding of the soul and character of the human being to the chance strains of an itinerant hurdy-gurdy, the latest cake walk as daily performed by the big sister on the family piano, or the newest coon song sung by all the street gamins? Not that they are necessarily bad for us whose tastes and whose characters are formed for better or worse, but we forget that those things to us but passing incidents are often epoch-forming to the little child, and leave an everlasting impression.

Considering the influence of music upon the intellectual nature of the child, we must look at it in the form most natural to children and to child races, and that most practical in the school-room—the singing of songs. A song is really a poem in a musical setting, which latter enhances, beautifies and vivifies it so that it takes on new meaning—it is a little story in poetic form made glowing and appealing by being sung, breathing forth the very essence of the emotion that lies at its heart, and envelopes and encloses it as the perfume does the rose. And stories are certainly a useful art in pedagogy, as they develop the sense of hearing, the power of attention, the art of description, help the memory and kindle the imagination, and lastly enrich those conceptions which interpret life. Then, too, a song develops further the sense of hearing than does the spoken word. We are environed by a whole sound world just as we are by a world of color and light and form, and all those things that appeal to the eye.

"There's music in the sighing of the reed,
There's music in the gushing of a rill,
There's music in all things, if men had ears,
The earth is but an echo of the spheres."

But alas! to many of us the key to this world seems lost, and the sound world with its thrilling rhythms and beautiful harmonies and appealing melodies, is a closed world through lack of development. Dr. W. H. Cummings, of the Guildhall School of Music, says: "Children are born with the musical faculty as well as with pairs of eyes and legs. If they are not taught to make good use of the faculties which God has given them, it is not a very wonderful thing that these faculties, instead of improving, should become almost non-existent. All at least may become excellent and discriminating listeners." Krehbiel, our greatest musical critic, says that the crying need of America is not more symphony orchestras, not more great performers, but more audiences that are educated to the standard of the symphony, or of the great masterpieces of music—audiences who can enter into its conception, follow its themes, its light and shade, not only emotionally but intellectually.

Physically, the singing of songs is of greatest benefit to the general physique. It strengthens the throat, the bronchial tubes and the lungs themselves, all by that fundamental physical law that use or activity is growth and health, and disuse atrophy and disease. Then, as Kate Douglass Wiggin tells us, "Learning to sing well is the best invisible means of learning to speak well." Certainly the cultivation of a mellow and well-modulated voice is a thing devoutly to be wished for by most of us Americans.

And this brings me to the most discussed point in all musical criticism—"Music and Morals," or the "Effect of Music on the Moral Nature of the Child."

With us, in kindergarten, the emotional and the moral go hand in hand, for the songs which children sing are afterwards played and acted out in games. The tender emotion roused by the song of the "Bird's Nest" is acted out in a dear little play, the sympathy with the activities of daily life about him is expressed in the games of Carpenter, Blacksmith, Farmer, etc.; the patriotic ardor finds its vents in marching games and flag songs, and the religious emotion its satisfaction in the Church game. Every student of childhood knows that emotion should be led into action or it degenerates into false sentimentality, or freezes into selfishness. Actions often repeated crystallize into habits, which the Duke of Wellington was wont to say were not only second nature, but "Ten times nature," and thus we lay the foundations of our moral character and spin the web of destiny by our repeated acts. Plato considered the influence of music upon character so vital and important that it formed one of the three things taught to Greek youth of his day, and he is reported to have said that no change can be made in music without a similar change being effected in the state—certainly a very powerful statement of its influence.

For the spiritual influence of music, I cannot do better than read you some words of Sidney Lanier's: "Now, there is a constant endeavor of man, but one to which less attention has been paid by philosophers, to relate himself with the Infinite not only in a cognitive way, but also in an emotional way. Just as persistently as our thought seeks the Infinite does our emotion seek the Infinite. We not only wish to think it, we wish to love it; and as our love is not subject to the disabilities of our thought, the latter of these two wishes would seem to be capable of a more complete fulfillment than the former. It has been shown that we can only think towards the Infinite; it may be that our love can reach nearer its object. As a philosophic truth, music does carry our emotion towards the Infinite. No man will doubt this who reflects for a moment on the rise of music in the Church."

And again: "From the negro swaying to and fro with the weird rhythms of 'Swing Low, Sweet Chariot,' from the Georgia cracker yelling the 'Old Ship of Zion' to the heavens through the logs of the piney-woods church, to the intense devotee rapt away into the Infinite upon a mass of Palestrina, there comes but one testimony to the substantial efficacy of music in this matter of helping the emotion of man across the immensity of the known into the boundaries of the unknown. Nay, there are those who go further than this. There are those who declare that music is to be the church of the future, wherein all creeds will unite like the tones in a chord. Now, it cannot be said that music has taken this place in the deepest and holiest matters of man's life through mere fortuitous arrangement." And I would further remind you that Dante, feeling that he had exhausted all earthly metaphors, and strained to their utmost limit the more spiritual ones of light and motion, took music to express that unutterable something that tongue cannot express,—that we do not even feel always, but which we know we possess under the influence of the sublime emotion aroused by music—that part of us which is infinite—and is allied to God.

To sum up. Then, if music is an important and vital influence in an all-sided development, and not a mere accomplishment, if it does develop this human being, is it not valid to incorporate it as a legitimate part of serious education? Is it not worth while to open to the child the sound world, with its beautiful melodies, its throbbing rhythms, its delicate nuances of intensity, and its glorious harmonies? Is it not worth while to have him hear good music and learn beautiful songs, that he may in time enter into the conception and soul of the great compositions of Bach, Mozart and Beethoven just as many of us now appreciatively enter into the great masterpieces of literature like Goethe's Faust or the tragedies of Shakespeare, and more important still to rouse into activity the lofty and pure emotions, not degrading ones, that these regenerate feelings may lead to actions that develop the character into nobility and grandeur; and lastly, is it not eminently worth while to develop in the child that medium which expands and exalts his spiritual nature by "carrying him across the immensity of the known to the

boundaries of the unknown," the medium containing the most of infinity in its nature and essence, and which leads to the very throne of God?

At the close of this paper Mrs. McCracken appointed Misses Stewart and Campbell, of the local kindergarten, as a nominating committee.

After a general discussion of the two papers read the committee reported the election of Miss Elizabeth Culp, supervisor of Pittsburg and Allegheny free kindergarten, as president, and Miss Cora Hicks, of Altoona, secretary.

SIMPLIFIED SPELLING.

THE spelling reformers who put forward their initial and tentative list of proposed changes in spelling must be allowed to have acted with moderation. Their work is very largely a vindication of Noah Webster, and few who consult his Dictionary and acknowledge it as standard will find overmuch to shock them in this installment of the "reform." For example, we find that no fewer than 131 of the words on their list are spelled in The New York Times and have for years been spelled exactly as the reformers would have us spell them, and that in five cases the proposed spelling is used as an alternative. Here are the 131 words:

abridgment	dieresis	honor
acknowledgment	dike	humor
adz	dispatch	idolize
anapest	dolor	jail
anemia	draft*	judgment
anesthesia	dram	labor
anesthetic	ecumenical	legalize
antipyrin	edile	license
antitoxin	egis	licorice
arbor	enamor	liter
ardor	encyclopedia	lodgment
armor	endeavor	materialize
ax	envelop*	meter
bark	Eolian	miter
behavior	eon	mold
brazier	epaulet	molder
candor	eponym	molding
check	era	moldy
checker	esophagus	molt
chimera	ether	naturalize
civilize	etiology	neighbor
clamor	fagot	niter
clangor	favor	odor
clue	favorite	offense
coeval	fervor	orthopedic
color	flavor	paleography
controller	gelatin	paleolithic
cyclopedia	gild*	paleontology
dactyl	gram	paleozoic
defense	harbor	parafin
demeanor	hock	parlor
deposit	hemeopathy	past*
develop	homonym	patronize
pedobaptist	rancor	splendor
phenomenon	raze	succor
plow	recognize	synonym
polyp	rigor	tabor
prenomen	rumor	tenor
pretense	saltpeter	tumor
preterit	savior*	valor
pretermit	savor	vapor
primeval	scepter	vigor
quartet	septet	wagon
questor	sextet	whisky
quintet	smolder	woolen

Here are the five of which the proposed form is of alternative use: Draught, or draft; envelope (noun), envelop (verb); passed (verb or adjective), past (noun); Saviour (meaning the Founder of Christianity), savior (meaning a rescuer); guild (noun), gild (verb). It will be seen that the alternative is allowed for cause.

As to the 131 words in which the use of this office accords with the recommendation of the reformers, it accords also with the general American usage. As to many of them, it accords with the universal modern usage on both sides of the Atlantic. It must be several generations since anybody in England or America spelled acknowledgment, judgment, and abridgment with an interpolated "e" for any better reason than that he could not spell.

The majority of the other words in the list divide themselves into a few classes. For example, there are the derivatives from the Latin through the French, which end in Latin in "or," and in French in "eur," as spelled in England in English in "our," and in "American," so to speak, in "or." The correctness of the American usage is acknowledged by English scholars, who still have not the courage to employ it themselves. These words, by the way, are among the 131. But to this class harbor and neighbor, for instance, do not belong. Prof. Freeman, when he was in this country, proclaimed his particular disgust with the American dropping of the "u" in neighbor, and intimated that he would be burned, or burnt, at the stake before he would drop his neighbor's "u."

A still larger group is that formed by the substitution of a final "t" for the final "ed" in verbs and past participles. There are over sixty of these, that is, over one-fifth of the proposed changes in the initial list, and this number might of course be almost indefinitely extended. In most cases the saving of the two or three silent letters which are dropped is not liable to misinterpretation, but in the cases in which the additional syllable is sounded, as in Chaucer's time it habitually was sounded, it is plain that the new spelling does not conform to the pronunciation, but attempts to make the pronunciation conform to it-

self. For instance, when the choir sings, "Blest be the tie that binds," neither the pronunciation nor the conforming spelling shocks anybody. But if the officiating clergyman should declare, "Blest are the dead who die in the Lord," his hearers would certainly be shocked and surprised.

We have seen that the President's adoption of the simplified spelling has been received in England with ridicule and disgust in some quarters and with pained remonstrance in others. The London Times has reason on its side when it says that the English language is a common inheritance of the English-speaking people on both sides of the Atlantic—and, for that matter, all round the world, and that it is most desirable that its orthoepy and orthography should as nearly as possible conform to some common standard. It is not desirable, other things being equal, that an Englishman should be shocked by the spelling of a book printed in America which purports to be printed in the English language, nor that an American should be shocked by the spelling of a book printed in England. Already that happens to an Englishman reading what he would call American misspellings of the English language. But nobody who reads Tennyson, or Landor, or FitzGerald in their own spelling will be shocked by stopt, and dipt, and lipt and kist, for those spellings will already be familiar to him through their frequent use.

Among the simplifications to which there can be no reasonable ground of objection are the dropping of the final "te" in words derived from the French, in which language the letters superfluous in English are really needful as a guide to the pronunciation. Quartet, quintet, epaulet, etiquet are liable to no accusation but that of unfamiliarity. As to the Websterian termination of "ter" for "tre" in centre, spectre, theatre, and so forth, that seems a small matter about which spellers may agree to differ. Would not the form recommended by the reformers seem to require the formation of the adjectives, "centeral," "specteral," and "theaterical" in place of the simpler forms in common use?

With the exception of the substitution of "t" for "ed" in the participial terminations, we see no matter of great importance in the "entering wedge" of simplified spelling now exhibited. All bad spelling is, of course, phonetic spelling to the apprehension of the bad speller. But one must recognize that all phonetic spelling is not bad spelling. And all simplified spelling is not phonetic spelling. Any educated person to whom the vocable "coquet" was suddenly presented would probably call it "kokay," and the sight of the word "gazel" would induce him to pronounce that the beast in question must be either a gayzle or a gazzle, while such spellings as "thru" and "tho," if he saw them in a context which made it clear what they meant, he would set down either to illiteracy or to pure freakishness.

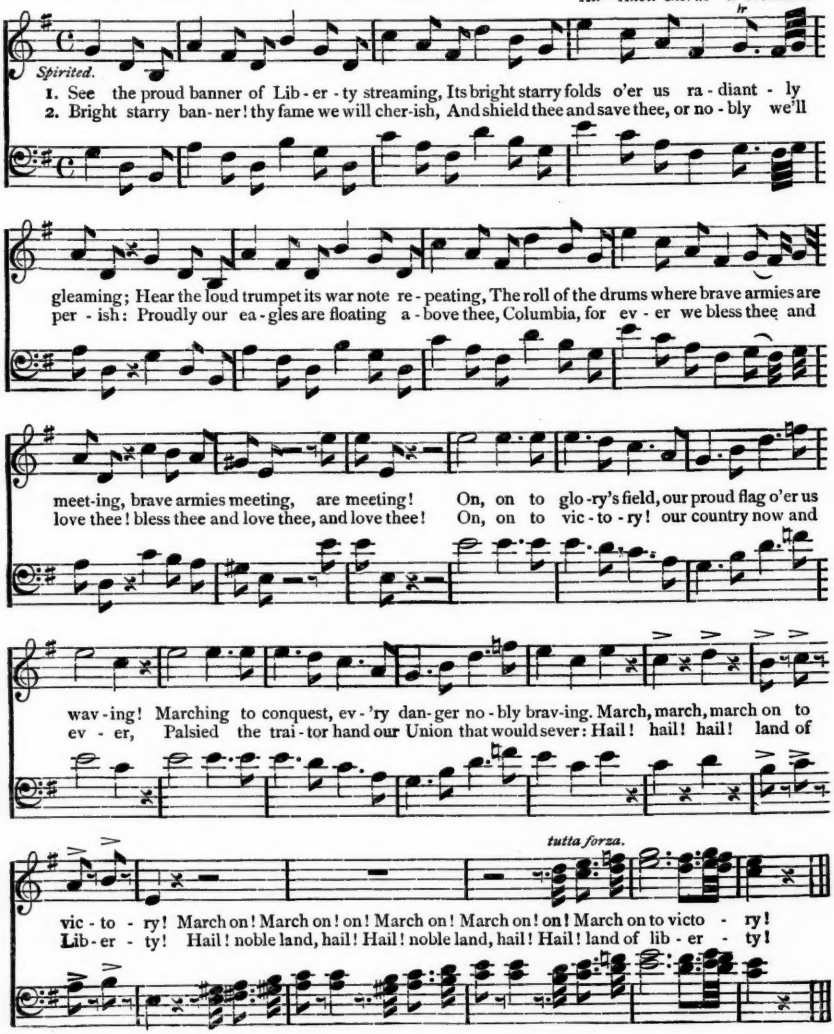
But it is necessary to bear in mind always that the question cannot be considered abstractly. In the first place, there are all the adult spellers who spell correctly according to the standards they have always known, who find themselves suddenly dislocated and bewildered, in order that a younger generation may save time by not writing superfluous letters. And then there is the international consideration to which we have already adverted. Although the proposers of simplification have to some extent the sympathy of some English scholars, their work has not been internationalized, although internationalization, in which England and America should be equally represented as they were in the revision of the translation of the Bible, seems to be the indispensable prerequisite to any real or lasting success. Our own copyright law, which requires that a foreign book, to enjoy its benefits, shall be printed in this country, is a powerful and practical persuasive to a system of spelling which shall not needlessly shock the British reader.

It is in this view that the hasty and ill-advised action of the President in adopting the new spelling, to be deprecated on so many accounts, is particularly to be deprecated. The English are already very sensitive about the Americanization of the English language. Instead of allaying their jealousy, the President's action will necessarily increase it. Already he is accused of raising up "the President's American" as a rival language to the King's English. His action distinctly postpones and renders more difficult the work of a reform which shall equally commend itself to all the branches of the English-speaking race.

And, indeed, such action would be in any case most difficult, and success in it most unlikely. "Language," says Max. Muller, "was not made by a council of grammarians." Neither can it be reformed by such a council. It is an evolution in which for a thousand years every speaker and every writer of English has borne his part. Academies and authorities may register and partly fix, they cannot divert or affect the evolution of the language. It is as true now of English as it was in Horace's time of Latin that it is general and popular usage which governs and will continue to govern its development.—*New York Times.*

AN extraordinary feature of the musical world of the present day is the enormous orchestras which can be produced on special occasions. A chorus of several thousand voices supported by hundreds of instruments may now be heard, rendering the immortal compositions of the greatest masters of the divine art, in the People's Palace at Sydenham and elsewhere. These orchestras are chiefly selected from the ranks of the people, of whom the artisan is the chief element. The reduction in the cost of instruments and the adoption of what may be called the joint-stock principle are tending still further to enlarge the boundaries of the practical musical world. At any time and for any purpose it is now easy to secure a band and chorus sufficient in numbers and executive power to render in an efficient and powerful manner, the glorious productions of Beethoven, Mozart, Handel, and other great masters. On all these occasions, the violin bears a most important part. It is the leading instrument in these great performances, as it is, after the voice, the most powerful medium of expression in solo. It is also the people's instrument. The labors of many eminent violin-makers, following in the steps of the great masters, have so immensely improved the art, that a good instrument may now be possessed by any one. And it may be said that with its improvement has arisen also the extensive and wide-spread practice of music generally. An ear accustomed to the fine tone of a good violin will not now tolerate a bad piano forte.

OUR FLAG O'ER US WAVING.

G. VERDI.
Air—Anvil Chorus "Il Trovatore."

Spirited.
1. See the proud banner of Lib - er - ty streaming, Its bright starry folds o'er us ra - diant - ly
2. Bright starry ban - ner! thy fame we will cher-ish, And shield thee and save thee, or no - bly we'll
gleaming; Hear the loud trumpet its war note re - peating, The roll of the drums where brave armies are
per - ish: Proudly our ea - gles are floating a - bove thee, Columbia, for ev - er we bless thee and
meet-ing, brave armies meeting, are meeting! On, on to glo-ry's field, our proud flag o'er us
love thee! bless thee and love thee, and love thee! On, on to vic - to - ry! our country now and
wav - ing! Marching to conquest, ev - 'ry dan-ger no - bly brav-ing. March, march, march on to
ev - er, Palsied the trai - tor hand our Union that would sever: Hail! hail! hail! land of
tutta forza.
vic - to - ry! March on! March on! on! March on! March on! on! March on to victo - ry!
Lib - er - ty! Hail! noble land, hail! Hail! noble land, hail! Hail! land of lib - er - ty!